mental health digest

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Mental Health digest

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cover story

Interagency Agreement on Alcohol Abuse and Alcoholism

An interagency agreement to combine resources in combating alcohol abuse and alcoholism has been announced by Elliot L. Richardson, Secretary of Health, Education, and Welfare, and John A. Volpe, Secretary of Transportation. Shown on the cover are Dr. Bertram S. Brown, Director of the NIMH, Mr. Richardson, and Mr. Volpe at the time the agreement was announced. The story appears on page 42 of this issue of the *Digest*.

mental health digest

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Insurance Coverage for Mental Illness: Present Status and Future Prospects

EVELYN S. MYERS

During the past three decades the extension of private health insurance protection has been impressive. At the end of 1968, between 77 and 87 percent of the civilian population under 65 (depending on the source of data) had some health insurance coverage of hospital expense. Between 74 and 80 percent had some coverage of surgical expense. The coverage for out-of-hospital care, while it also increased, is much less than for hospital care; at the end of 1968, 43 percent of the population had some coverage.

One other set of statistics is relevant. Voluntary health insurance met only 36 percent of medical care expenses in 1967. It met 74 percent of hospital care expense, 38 percent of physician services, and 4 percent of expenditures for other types of care; about 24 million Americans, mainly in lower income groups, are without private health insurance.

During the period when health insurance coverage was growing, there were changes in the care of the mentally ill. The psychoactive drugs proved of value not only in the treatment of hospitalized patients but in keeping mentally ill people out of the hospital. A trend toward community care began. Admissions of psychiatric patients to general hospitals rose. While admissions to public mental hospitals continued to rise, there were shorter stays and higher discharge rates, so that the number of patients in these hospitals began to decline. A host of new treatment modalities were introduced: partial hospitalization, group therapy, family and conjoint marital therapy, etc. Short-term treatment and crisis intervention began to be considered respectable. The Federal government participated in community treatment by passing the Community Mental Health Centers Act of 1963.

All these developments were reflected in a changed attitude toward mental illness—shared, if not by all of the public, at least by a substantial part. Psychiatric illness is now seen as potentially curable or at least controllable in much the same way as high blood pressure or diabetes.

With mental illness more effectively treatable, such treatment became more readily insurable. It is difficult to estimate how many people are covered for psychiatric care under health insurance, both because of the multiplicity of health insurance carriers and the swift pace of developments. One study reported by the Health Insurance Association of America showed that of the persons covered under a sample of new group health insurance policies 80 percent had some form of major medical coverage; 97 percent were covered for nervous and mental disorders if hospitalized, and 88 percent were covered for out-of-hospital treatment.

Another approach was made by the Joint Information Service of the American Psychiatric Association and the National Association for Mental Health in a 1968 survey. They went to providers of care—10 hospitals and a sample of psychiatrists in private practice. An analysis of insurance coverage of 1,000 psychiatric admissions showed that 74 percent of the patients in the voluntary general hospitals had health insurance coverage for a portion of

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their bill; in the private psychiatric hospitals 69 percent had insurance coverage and an average of 58 percent of the bill was paid; in public general hospitals 35 percent were insured and an average of 70 percent of the bill was paid.

Coverage for outpatient care was less: only 26 percent of 12,917 patients seeing psychiatrists in private practice had insurance coverage. Forty-four percent on whom information was available had approximately 50 percent of the bill paid, 36 percent had about 80 percent paid, and 20 percent less than 50 percent.

In addition to expansion of health insurance for all illness and to more effective treatment of the mentally ill, in the past 10 years there have been developments that have served as a spur to progress or given an indication of the increasing feasibility of improved coverage. These are listed roughly in chronological order, with two caveats: they are illustrative, and to a certain extent they also reflect my biases as a former employee of the National Institute of Mental Health and a member of its Insurance Task Force, and a current staff member of the American Psychiatric Association. I will confine myself to voluntary health insurance and will not consider Medicare and Medicaid or the Civilian Health and Medical Program for the Uniformed Services.

Group Health Insurance project—The first major experiment in providing outpatient care occurred in 1959 when Group Health Insurance, Inc., of New York City undertook a project, financed by the NIMH, to demonstrate the insurability of mental illness by offering short-term psychiatric treatment to 76,000 members. During a 2-year period 923 patients sought psychiatric service. Conclusion: "In the present stage of acceptance of psychiatry, there appears to be little danger that the costs of insuring the extent of coverage offered by the project would be prohibitive."

Industrial plans—Many large employers have psychiatric coverage in their health care plans. For example, International Business Machines Corporation covers 135,000 employees for psychiatric illness. This plan, which makes no distinction between mental and other illness, covers 365 days of hospitalization and 75 percent of the cost of out-of-hospital care after a deductible of $200. Eastman Kodak Company's major medical expense plan makes no distinction between mental and other illness. After a deductible is satisfied, the plan pays 80 percent of the cost of inpatient and outpatient care.

Southern California Permanente Program—In 1961 the Kaiser-Permanente prepaid group practice health plans in Southern California established a department of psychiatry and offered outpatient psychiatric services to a contracting union, Retail Clerks Local 770. That union later set up its own clinic; the program at Kaiser-Permanente now serves a number of contracting groups including 85,000 Federal employees, a lesser number of State employees, United Auto Workers members, and others.

NIMH Guidelines—President Kennedy, in his mental health message to Congress, directed the Secretary of Health, Education, and Welfare "to explore steps for encouraging and stimulating the expansion of private voluntary health insurance to include mental health care." A Task Force on Insurance was established within the NIMH in 1963. It developed principles for improving coverage that included early referral and short-term intensive therapy, with low deductibles and co-payment by the patient; expanded in-hospital benefits and coverage of partial hospitalization; in-

creased recognition to "all the professional skills essential to treatment and rehabilitation," and coverage of prescribed drugs for ambulatory as well as hospitalized patients.

UAW contract—A psychiatric care program of great significance is the one negotiated in 1964 between the United Auto Workers and a number of automobile and agricultural implement firms, to become effective in 1966. Covering nearly three million workers and dependents, it provides hospitalization up to 45 days and out-of-hospital treatment up to $400 per year, plus psychological testing up to $45. One innovation is that it reverses the usual insurance co-payment approach. The insured pays no deductible; for out-of-hospital therapy with a private practicing physician the first five visits are covered; the patient pays 15 percent of the cost of the next five visits and 30 percent of the cost of the next five. For all visits after the 15th, he pays 45 percent up to the $400 limit. To encourage the development of organized programs employing the mental health team approach, there are no patient payments in most such programs; in a few there is co-payment beginning with the 11th visit.

American Psychiatric Association Guidelines—In 1965 the APA organized a conference of psychiatrists "to hammer out definitions, principles, and standards which could serve as guidelines to psychiatrists and other physicians working with insurance carriers to improve coverage." The result was the first edition of *APA Guidelines for Psychiatric Services Covered Under Health Insurance.* A second conference attended also by representatives of insurers and the Federal government, led to a second edition published in March, 1969.

Federal Employees Health Benefits Program—The most significant developments in regard to mental health benefits did not occur until 1967 and 1968. The program consists of 36 plans. The two largest, Blue Cross/Blue Shield and Aetna, cover nearly 80 percent of participating employees. Before 1967 there was a requirement of 50 percent co-payment for outpatient psychiatric care under Blue Cross/Blue Shield. This is now covered at 80 percent (once-yearly $100 deductible) under the high option, 75 percent ($150 deductible) under the low option. The plan includes 365 days of hospitalization under high option and 30 days under low option (same as other illnesses). It covers day and night hospital care, group therapy, family therapy, and services of members of the mental health team besides the physician.

The Aetna Indemnity Benefit Plan pays all of the first $1,000 room and board charges in a hospital, 80 percent (75 percent under low option), and 80 percent of all expenses after the first $1,000. Initially this plan made the same provision for out-of-hospital treatment of mental illness as for other illness, but in 1961 this was cut $250 a year and 50–50 co-payment. In 1967 the plan added coverage for day and night hospital care, group therapy, family therapy, and services of a psychologist or psychiatric nurse when authorized by a psychiatrist. In 1968, the benefit was raised to 80 percent and the $250 per year limit was removed.

Of the remaining 34 Federal plans, 31 provided in-hospital and out-of-hospital care for psychiatric illness as of January 1969, although such benefits are often more limited than those for other illness; two provide in-hospital care only, one provides out-of-hospital care but excludes hospitalization for mental illness.

Steelworkers contracts—The United Steelworkers introduced psychiatric benefits in three contracts with the

can, basic steel, and aluminum industries. The can industry contract includes out-of-hospital coverage similar to the UAW plan. The steel contract uses the major medical approach, with the plan paying 80 percent of outpatient care up to a $1,000 maximum per individual per year (deductible of $50 per individual and $100 per family). The aluminum industry contract has benefits similar to those in the steel industry.

Massachusetts Blue Cross—In 1968 this plan announced new psychiatric benefits available under a special rider to master medical groups of 75 or more members. There is no deductible or co-insurance; "usual and customary" fees will be paid to psychiatrists for out-of-hospital care costing up to $700 in a 24-month period, with another $700 allowed for psychological testing and services of mental health professionals other than physicians. The monthly premium for the rider is 90 cents for an individual and $1.40 for a family.

Programs sponsored jointly by insurers, prepaid group practice plans, and universities—Blue Cross of Massachusetts has a commitment to support the Harvard Medical School Community Health Plan, which includes psychiatric benefits. The Connecticut General Life Insurance Company is underwriting the Columbia Hospital and Clinic Foundation, staffed by faculty of Johns Hopkins Hospital and Medical School in Baltimore. Services are provided to residents of Columbia, Maryland, and psychiatric care is covered; the premium is $43.50 a month per family. In both plans teaching and research are included as well as health services.

Some trends—A number of trends are discernible. First is the influence of the nationally negotiated health programs, covering large numbers of employed persons. By 1968 negotiated plans accounted for almost half the employees covered by health benefit plans in private industry.

The second concerns the Federal government. The NIMH guidelines have had an important effect. The Federal Employees Health Benefits Program has influenced developments significantly. The government, through NIMH, has sponsored significant research.

The increasing interest by insurers has been another encouraging trend. The National Association of Blue Shield Plans announced in 1968 that participating plans should have available after April, 1969—to all groups willing to buy it—a fully paid benefit for outpatient psychiatric treatment. Blue Cross has eliminated its exclusion of benefits for alcoholism, drug addiction, and mental disorders in its basic national benefit certificates.

The commercial health insurance carriers, as represented by the Health Insurance Association of America, are broadening the scope of benefits. Late in 1969 HIAA urged its member companies to consider recommendations including: placing emphasis on ambulatory care, including prepaid group practice, community ambulatory care centers, and other facilities that are less costly than hospitals; relating their coverages to preventive services; and restructuring co-insurance and deductibles. Within the broader scope of benefits being contemplated, psychiatric coverage seems to be assuming an important role.

There has been increasing activity on the part of the mental health professionals. The American Psychiatric Association Guidelines have been mentioned. Other professional groups have become active; for example, the American Psychological Association has issued a pamphlet called *The Psychologist and Voluntary Health Insurance*. Finally, the major citizens' asso-

ciation in the field, the National Association for Mental Health, has devoted attention to the subject. Sessions at meetings have been devoted to improving mental health insurance coverage, and a pamphlet offers practical suggestions to NAMH components.

"Social" versus "business" approach—No one pattern of benefits has prevailed. The NIMH guidelines take the social approach in their recommendations for short-term intensive therapy, low co-payment to encourage early referral; and a sliding scale of co-insurance, with the first five visits to be provided at no cost to the patient. While the APA guidelines do not take a position in favor of short-term therapy, they state that "financial arrangements for psychiatric coverage should be structured in such a way as to encourage prevention, early diagnosis, and early treatment, and to eliminate or minimize financial barriers to service."

In stating the case for a social approach, one must keep in mind that in addition to the financial deterrents under the "business approach," there is another deterrent: the stigma attached to mental illness that lingers in our society. Education is needed as to the availability of help and its appropriate utilization. Some prepaid group practice plans and unions are beginning to undertake such efforts. Greater cooperation between family physicians and mental health resources is needed. An NIMH-sponsored pilot project at the Jamaica Medical Group of the Health Insurance Plan of Greater New York indicated that family doctors altered their referral practices following 2 years of contact with the mental health service.

Another argument in favor of the social approach is that while those plans with no financial deterrent to services usually have a low limit on the amount of service available, this amount has usually proved sufficient for most users. For example under the UAW psychiatric benefit program among members in Michigan, the average number of outpatient services received by patients was 8.5.

Some persisting questions—Insurers have raised objections to broader coverage. Some of them relate to definitions of mental illness and lack of knowledge about treatment modalities. Many of these have been dispelled; among those that persist is the "real illness" problem. Many insurance carriers will provide coverage for X-ray and laboratory testing that may be required for evaluation of complaints but balk at providing coverage for evaluation of psychiatric symptoms on the grounds that they do not constitute a "real illness."

Another question has to do with the chronic nature of mental illness. While acknowledging that many mental disorders are in fact chronic, treatment may be needed for brief periods to keep the condition under control.

Another question has to do with the ability of the insurance mechanism to finance such services as consultation to community agents. The matter came up for debate during the conferences leading to the second edition of the *APA Guidelines for Psychiatric Services Covered Under Health Insurance Plans*. The language finally agreed upon was: "It is recognized that the effectiveness of psychiatric therapy and of efforts to prevent mental disorders are related to the community milieu in which the insured individual or groups of individuals live and function. It follows that there should be provision for professional counseling to appropriate community agencies—e.g., parents, schools, labor unions, family service agencies—when a therapeutic gain for a group of insurees may be anticipated."

Perhaps a stickier problem is that posed by the availability of public money to pay for psychiatric care services and the reluctance of insurance carriers to make insurance benefits available for such care, for example, in the State hospital. The Federally supported community mental health center has raised questions related to payment for services rendered in contracting or affiliated components of a center, particularly when these are not medical facilities. More experience in the operation of centers will have to accumulate before the importance of health insurance in their financing can be discerned.

The future—There are indications that psychiatric benefits have proved their usefulness, are here to stay, and will increase. Experts in this field think that the next step will be the development of a paid-in-full outpatient benefit for mental illness treatment.

However, this kind of prediction does not make much sense when we consider the ferment going on in regard to the financing and delivery of *all* health services. The future coverage of mental illness depends on the resolution of this larger issue.

There has been speculation that by the mid-70s, we are going to have universal health insurance in the United States. The Nixon administration has appointed a task force headed by Blue Cross President Walter McNerney to look into problems of financing health care. While some feel that the task force recommendations will stress the private sector of the economy, McNerney himself has made some forthright statements emphasizing the need for a coordinated approach between the public and private sectors.

Other indications of changes in the health care system came at the 1969 meeting of the National Governors' Conference, which endorsed a plan that would require employers and employees to buy health insurance from private carriers; the self-employed would buy their own and the Federal government would purchase insurance for the poor. The American Hospital Association has announced the formation of a committee to review financing and delivery of health services.

By mid-1970s a half-dozen proposals for some form of national health insurance had been introduced in Congress or were being readied for introduction. The approaches vary widely. The American Medical Association's "Medicredit" proposal would grant an income tax credit ranging from 10 to 100 percent of the premium cost of a health insurance policy; taxpayers in the lowest income group would receive a certificate good for the full cost of the premium. Tax credit bills introduced by Representative Richard H. Fulton and Senator Paul J. Fannin use a similar approach. At the other end of the spectrum is the proposal of the Committee for National Health Insurance, chaired by United Auto Workers' President Leonard Woodcock; in addition to providing practically universal coverage and a comprehensive scope of benefits, including hospital, medical, and dental, it would affect the delivery system by offering incentives favoring a more rational organization of services. The AFL-CIO has espoused a similar approach, and a bill that includes many of the features emphasized at the AFL-CIO convention was introduced by Representative Martha W. Griffiths. Other groups and congressmen will undoubtedly bring forth their plans. Only time will tell which will win out. One can hope that a rational system for financing and delivering health services will evolve. One can also hope that such a system will include a broad, comprehensive scope of mental health benefits.

The Cybernoses of the Aged—The Failure of Self-Regulating Mechanisms

JOOST A. M. MEERLOO

The Concept of Cybernoses

My purpose is to draw attention to failures of adaptation in the aged that provide information pertinent to both juvenile genesis and senile decline. This contribution is based on 24 years of experience in child psychiatry. I remained in contact with geriatric psychiatry because I was impressed with the resemblances and parallels between the development of adaptive reactions in the young and the breakdown of these reactions in old age.

There is need for better ways of softening the ravages of old age. This study may indicate therapeutic means of building up new adaptations, since local forms of cell- and tissue-regeneration and adaptation take place even when the total organism is declining or dying. The problem of life is the secret of the structuring principle that builds living cells, organs, individuals, groups, and communities.

Man is a compositum of a hierarchy of structures encompassing a conglomerate of microstructures—a hierarchy that is part of a macrostructure. It would be a distortion of truth to use this structural model to explain all human behavior. But the message contained in the decline and decay of human adjustment gives us a different insight into the development and miracle of regression and regeneration. Instead of using the model which involves the terms neuroses and psychoses, we use the model of *cybernosis*—the breakdown of the automatic adaptive steering mechanisms.

These mechanisms are part of a hierarchy of automatic steering and control mechanisms, part of which are inborn, and part conditioned and learned. Psychology speaks of these acquired mechanisms as psychic defense mechanisms. The use of the cybernetic model is helpful in studying the behavioral outlook for patients; man is regarded as a structure of self-piloting systems that avail themselves of various biochemical and mechanical reaction patterns.

Adherence to the model of a steering governor prevents reductionism, the explanation that life is *nothing but* a group of random physical and chemical reactions. Each structure is looked upon as an entity, a whole (etymologically: healthy=sound=sane), with its own inner hierarchical order of wholes and parts and itself being part of a superstructure. The concept of structure that arose in behavioral science during the last 10 years had been used in medicine. This use of the cybernetic model in which various reflexes serve as a stability-protecting feedback may lead to a more economical clinical expression, and provide new inferences for the study of neuroses and psychoses. We shall be able to look at the stereotype systems of reference. The interaction between the inductive and deductive methods used in cybernetics engenders clearer questions and provides a new outlook on therapeutic measures, especially in providing regulatory mechanisms for the aged to compensate for their loss of "wisdom of the body."

The hierarchy of adaptive and self-regulating systems begins with the microstructure of organs inside the cells, with the integration and cooperation

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of cells, organs, and persons, gradually transcending into supraindividual structures of families, communities, nations, and cultures. Our organism reacts in a variety of ways to cold air, to a humid heat wave, to a virus infection, or to a plasmodium infestation, to air pollution or to oppressive sounds and sonic booms, to strange rays in the universe, to the space it moves in, to color, to housing and the noises made by neighbors, to the psychic atmosphere in the parental home, to siblings, and to the atmosphere we create in interaction with our mates. The organism reacts to rejection as well as to status deification, to the avalanche of medication and to our sometimes strange habits of feeding ourselves, to starvation and to overeating, to freedom and slavery, to teasing and insinuation, and to pleasant stimulation.

It is informative to compare the building up of infantile adaptation mechanisms with some of the breakdown reactions in the aged. In childhood it is often difficult to break the infant-mother dependency and to prevent a life-long symbiotic interdependency that is bound to cripple the initiative of the child. In the aged we find comparable problems: the unobtrusive symbiosis between husband and wife leads to a catastrophe when one dies. The dementia that may develop in the surviving partner, a mixture of mourning and regression, has a bad prognosis. These persons have given up the will to live. Sometimes therapists can become a substitute transference figure when intensive psychotherapy is possible.

Coming back to our inferred hierarchy of steering mechanisms, we have to be aware that this concept involves questions about the surplus or lack of energy. Every concept of structure implies an order of energy, and intensity and quality of energy. Self-steering depends on the self-regulating organ (or machinery)—on *evaluation* (a built-in measuring and evaluting device) and a time factor, the rapidity of regulation. A room-air thermostat with delayed reaction leads to a vacillation in temperature. In the aged, in whom functions are slowed, vacillations in functions occur as a result of the slowing of inner automatism.

In these automatic regulations energy that is side-tracked in favor of the regulating mechanism plays an important role. For greater exactitude of the internal governor we have to feed the automatic device with a geometrically increasing proportion of energy. That is why we should provide extra energy to elderly people who have to struggle to attain coordination of their muscles. This extra energy is what the physical therapist provides in passive reactivation therapy, or what is done in sinusoidal electrotherapy. For patients afflicted by a stroke, provision of external energy helps them physically and psychologically. We can observe similar results in compulsive patients who waste their energy with overperfection. When we put them temporarily in a program of physical and psychological exercises by providing energy from outside, life becomes easier until the time when insight helps them to diminish their rituals and overdoing.

Disturbances in the Regulatory Mechanism

The asleep-awake rhythm—The first sign of disturbances due to old age is bad sleeping habits and unrest during the night. A disturbance in sleep rhythm is often seen in Parkinson's syndrome. Some parkinsonian patients are able to perform normal functions at night, whereas in the daytime they present a picture of rigidity with tremor. The history of the asleep-awake rhythm is important because whenever we can influence this rhythm favorably we help the patients and those who

take care of them. Giving tranquilizers or sedatives is not enough. Sometimes stimulation helps, especially in the morning. Small doses of amphetamine can have a calming effect in the aged, as in children. All over the world clinical attempts are made to influence this rhythm with steroids, caffeine, or strychnine in the daytime, with tranquilizers and sedatives at night. Improved oxygenation at night improves sleep. Many a patient can be taught to adapt to his different sleep rhythm by sleeping in the afternoon and doing something (writing or reading) at night.

Thermoregulation—Though not yet a common method, the easiest way to study an automatic regulation is by *continuous* measuring of the body temperature and its diadic rhythm. Changes in thermoregulation in the aged can take place without psychological or somatic consequences. The usual complaint is an abundance of perspiration at night with no perspiration during work in the daytime. This parallels an inversion of the day temperature curve—the highest temperature in the morning and the lowest in the evening. Frequently there is spontaneous hypothermia in the aged, and there may be no fever with pneumonia. Our impression is that there are short fever episodes leading to short attacks of shivering. Hypothermia is seen especially in the evening. A 24-hour curve obtained with an electric thermometer will tell us more about the diadic changes in the thermostat of the body. The study of thermoregulation provides an opportunity for changing the heating of the environment and adapting it to the needs of the patient. Study of the changes in basal metabolism in the aged are needed to evaluate these regulatory disturbances. Failing sugar metabolism is one of the first cybernetic breakdowns.

Oxygen regulation—In the aged there is not only cerebral lack of oxygen due to vascular disturbances, but also a sensitivity to incidental lack of oxygen. It may be the result of bad ventilation, atmospheric pollution, too high an altitude, emotional hyperventilation, and especially diminished brain circulation during sleep. That is why geriatric patients are prone to transient collapse syndromes associated with migraine and vomiting, as seen in athletes after too much effort. Sometimes the patient complains about dizziness, yet the cardiologist or otologist may find no symptoms. Unrest at night can be helped by providing more oxygen or fresh air. Syncope followed by a cataleptic syndrome may occur during an attack of flu or bronchial catarrh; the rigidity disappears when the patient is walking again.

Psychosomatic insecurity—Dizziness is mostly an expression of psychic as well as somatic insecurity. It is a lack of adequate information to the organs. Since in the aged so many equilibria are broken, it is difficult to judge what contributes the feeling of insecurity and the failing homeostasis. The patient usually complains about dizziness, and many physicians think of vestibular pathology or supra-vestibular afflictions in the central nervous system. In the science of automatic regulations, insecurity is called negative information. In the aged, the stimuli in the nervous system travel slowly, the organism reacts slowly, and there is insecurity about contacts with others; because of deafness or bad eyesight, it is difficult to communicate. Ready knowledge is more limited because of a diminished admission to the mnemic order of impressions. Because of this disturbance, there is memory loss, with poor orientation in place and time. The patient cannot differentiate between the different systems

of communication: social, religious, familial, and internal. For the physician, this disturbance is difficult to diagnose, because everyone supposes that he lives in worlds of the same order of interconnections. Aged patients get especially lost in regard to administrative regulations. They deserve a new kind of ombudsman to protect them against the multiplicity of social regulations. The same is true for financial affairs. We are able to help the aged in their struggle with adaptive dizziness, e.g., that which occurs upon changing from the horizontal to the vertical position, as in going to bed and getting up. We can give the patient a table beside his bed that he can use as a stool and a crutch till homeostasis is regained. We should make more recommendations for use of a cane. Homo sapiens is often afraid of his unsupported, vertical stance.

The search for greater emotional security—The search for emotional security starts very early. After the baby goes through the walking crisis and moves away from the mother, we observe that reactions come to the fore in the service of "emotional tanking" aimed at giving the feeling of being secure again. At 18 months, the baby runs away but turns around to see whether mother is there. Later the child brings mother an object—a toy, ashtray—as an obol to keep until the youngster has returned from his next wandering. Many mothers misjudge this security-searching strategy and reprimand the child for his good intentions. At the end of puberty, negativistic discussions and rebellion cover up feelings of insecurity. In mature people, there is the reflex act of making a private nest-corner before going to sleep. In concentration camps, those who were able to construct such a token private corner behaved in a more stable manner and showed more resistance to the onslaught. In the aged, two reactions develop: a retreat into one's own nest, with accompanying spiritual isolation, and a hoarding compulsion. Some prefer to sleep on the floor for greater safety. I have seen these hibernating aged who starved to death in the midst of plenty. They did not tolerate any intervention, but accumulated a false inner security at the cost of social living and their own welfare. Senile autism is rarely mentioned. In the elderly autism is nearly always an acute reaction to a feeling of inadequacy, which disappears when the patient feels at home again.

The reaction to loneliness—Next to loneliness are the various depressive reactions caused by the loneliness that life inflicts on the aged. Relatives die, friends pass away, children live elsewhere; the aged more and more lose the capacity to relate, and finally they are left alone. Most traumatic is the broken symbiosis with the children, but depression also occurs as a reaction to the perception of inner disorganization.

To understand what happens as a result of disturbed social interaction we have to examine the experiments in sensory deprivation. Sometimes younger people start to hallucinate in less than 12 hours. Man needs a continual confrontation with reality, social interaction, conversation, and verbalization of sensory input to be able to differentiate between stimuli coming from inside and from outside. One of the most common loneliness reactions in the aged is the projection of inner feelings into a fantasied reality. What we call senile paranoia constitutes a syndrome in which the return of vague repressed sexual feelings from the past is expressed in terms of imaginary persecutions. Loss of inner coherence is often doubt about the ability for self-assertion.

That is why extra status has to be given to the aged.

Besides the hallucinatory syndrome there are depressive symptoms, feelings of guilt about being the lone survivor, and guilt about not being able to control the uncontrollable and thereby identifying with the lost mate or friend. The so-called melancholia agitata of the aged usually implies playing the role of an introjected hostile mate who died. This internalization of thoughts about the dead also may be regarded as a defense against loneliness. These patients are sensitive to the hidden intentions of people in their environment. They are aware of hostile feelings in their children. Becoming a pensioner is interpreted as a death verdict. Suicide is common after receiving a pension, especially among old people who live alone. In the acute reactive dementia senilis resulting from the death of the beloved mate, the prognosis usually is very poor. In one case we studied, the dementia proved to be a pseudodementia caused by the relinquishing of every wish to live, as if the death of the mate were a death verdict for the patient, who from then on waited for death.

Adaptive regression—Very important for the study of automatic regulatory mechanisms is the concept of adaptive regression. Regression is a universal method of defense. Even in the most primitive organisms we find a defensive encystication whereby the organism can live under stressful circumstances. We must differentiate between phylogenetic regression, which is a return to the archaic responses of the race (a genetic *reculer pour mieux sauter*), and ontogenetic regression, which is a return of personal infantile reactions. In the study of the cybernoses, comparative studies of the genesis of archaic automatic regulations will play an important role; for instance, sudden regression and disorientation may be a result of somatic or psychic trauma or an anxiety reaction. In the aged, regressions to archaic defenses are more common because homeostasis is sustained with greater difficulty.

Regression is one of the first defenses against abnormal stress. Even the electroencephalogram may show an infantile pattern. This regression is not necessarily caused by brain hemorrhage or thrombosis; it is seen also after social trauma. A frequently observed reaction in the lonely aged is the "Todstell-reflex" (archaic cataleptic camouflage)—the passive capitulation to fate. It can occur even after a common cold. The patient "gives up." We find such patients lying in bed, refusing to eat and drink, dried out and cataleptic. When the social worker can get them out of bed at once and let them drink and eat, the regressive spell is often broken. In milder fashion, there is increased infantile dependency: these patients want to be nursed like babies. Though there are no symptoms of dementia in the sense of loss of intelligence, there is lack of decorum and coordination, though no lack of criticism about their environment.

Much of the conversational rigidity in the aged can be used as a model for compulsion neuroses. Repetitiousness is often used to cover up deep-seated anxiety. In patients with life-long compulsive defenses, senile breakdown occurs earlier. The rational defenses do not work anymore; aged patients cannot rationalize and sublimate their feelings. Their justifications go haywire, their sex impulses regress to exhibitionism. Besides this regression to infantile masochistic strategy and coercive helplessness, infantile ambivalence comes to the fore. The patients express themselves in opposites and tell the reverse of what they mean, e.g., they say they want to go

home, but the pleasure in being taken care of speaks in all their gestures; indeed they would never try to run away.

In the aged there are almost no uncommitted reserve channels of information. Regression and mental retreat constitute the patient's strategy in order to reduce the sensory input so that motor problems will not be increased. Yet, the resulting diminished confrontation with reality is secondary to the malfunctioning of the organism.

The elderly person with sensory insufficiency—the vicious circle resulting from diminished eye-hand coordination—can be retrained to greater sensory acuity. The pseudodementia and regression resulting from sensory withdrawal is a process that can be reversed, or at least slowed down, when appropriate exercises are undertaken. In the aged, one of the first faulty transformations is in the metabolism of carbohydrates; the same applies to the precision of sensory input. For all these reasons it is continually necessary to stimulate social planning and creative achievement in homes for the aged.

Regression to infantile rhythms—In progressive dementia the patients produce only the rhythms and sounds of childhood. They sing without stopping, and at night they yell like a newborn child. Yet they use their rhythmic noise-making for evasion and mental blackmail; it is the only weapon they have to combat "mother" and nurse. When they talk, they provoke injustice and try to accuse people to make them angry. In between, they hum and croon and want to feel deprived. In therapy with the mentally disturbed aged we can use these regressions to primitive adaptations to make contact with these patients. Exercises in rhythm and in yawning, laughing, smiling, stretching or sneezing, are understood by them and imitated. Breathing exercises can improve their oxygen supply. The aged become as suggestible as children. That is why we find among mates or siblings who have long lived together, a psychosis à deux; after separation we find that the less sick of the two recuperates.

The advantages of aging—Not all regulatory mechanisms deteriorate. Even at an advanced age, regenerative processes take place; new constructive adaptations are made. I shall never forget the reactivation of the aged in wartime England, when very old women and men cooked, climbed stairs, and washed dishes for the glory of England; they even took their place in the Home Guard. They were freed from the feeling that they were not needed anymore. Life acquired new meaning for them.

Under more normal circumstances, new qualities come to the fore. Getting old is not tragic; it is above the tragic. The urge for philosophical contemplation encourages man's thinking to become more integrative and synthetic. Aged scientists are the surveyors and integrators; the younger ones are the specialists and technicians. This also comes from the lifetime total experience. There is an increased urge for religious experience, not in the dogmatic sense but from the synthetic point of view—the meaning of our being on earth. The rivalry for status has usually disappeared.

Older people do not fear death as much as crippling disease and the loss of body functions. They can react with more inner peace and emotional stability when they have learned to accept human fate. An institution may look like a geriatric nursing home, yet be a place where the thinking activity remains full of zest and vitality.

Let us hope that we can all learn to retire to such creative equanimity!

The Concept of Mathemagenic Activities

ERNST Z. ROTHKOPF

Some years ago, I submitted the report of an experiment about mathemagenic behavior to a journal. The article started with "You can lead a horse to water but the only water that gets into his stomach is what he drinks." The editor deleted the sentence. I regretted this not only because the phrase pleased me but also because the problem of the not-drinking horse is a useful metaphor for explaining why the study of mathemagenic activities is a challenging enterprise for the educational psychologist.

The proposition is simple. In most instructional situations, what is learned depends largely on the activities of the student. It therefore behooves those interested in the scientific study of instruction to examine these learning activities, i.e., the "drinking habits" of students.

The word "mathemagenic" is derived from the Greek root *mathemain* —that which is learned and *gignesthai* —to be born. Mathemagenic behaviors are behaviors that give birth to learning. More specifically, the study of mathemagenic activities is the study of the student's actions that are relevant to the achievement of specified instructional objectives.

The concept of mathemagenic activity implies that the learner's actions play an important role in determining what is learned. This concept is related to the distinction between nominal and effective stimuli in learning. The distinction is that the nominal stimulus—the stimulus object —is not in simple correspondence to the stimulus that has an effect on the subject. Discrepancies result from characteristics of the receptor surfaces and from acts by the subject which transform or elaborate the nominal stimulus. These acts have been called set, attention, orienting reflex, information processing, cognition, rehearsal, and so on. All these acts fall within the boundaries of the term "mathemagenic activity." These considerations suggest a functional view of mathemagenic activities, namely that they determine the nature of the effective stimuli in experimental or instructional situations. The character of the effective stimuli, in turn, determines what is learned.

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Definition

Consider how students learn from written material. What determines which capabilities a student has acquired after exposure to an instructional document? The content is undoubtedly important. So is, to a lesser degree, its organization. But most important is what the student does with the instructional document. The student has veto power over learning, since without activity on his part the instructional objectives can never be achieved.

The mathemagenic effects of human activities may be defined as the effects of these activities on the achievement of specified instructional objectives. For any set of objectives, activities in specific situations or places may fall into four categories: (1) mathemagenic positive, (2) mathemagenic negative, (3) mathemagenic neutral, and (4) mathemagenic unknown. Mathemagenic positive means that the activities are conducive to the attainment of the specified instruc-

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tional objectives; mathemagenic negative means that they interfere.

For convenience, only activities in category 1 or 2 will be referred to as mathemagenic activities.

The importance of the terms specified "instructional objectives" and "specified situations" should be emphasized. Reference to specified instructional objectives is important for logical as well as for practical reasons.

Because the learned consequences of an instructional episode are varied and difficult to determine, any definition of mathemagenic activity that is broad enough to encompass all activities that produce any learning (or performance changes) in any situation is too broad to be useful. It is more practicable to speak of mathemagenic activities that are relevant to a restricted set of performance objectives or to classes of such objectives.

The distinction between performance objectives and classes of such objectives must remain hazy. An example of an objective is that a student "be able to describe in specified detail the setting in which the mushroom, *agaricus campestris*, is likely to grow." An example of a class of objectives to which a single mathemagenic activity pattern may be relevant is to describe the natural settings in which to find each of the mushrooms that are mentioned in a book on mycology.

The reason that the definition of mathemagenic activity requires the specification of situations or places has a similar basis. Performance changes in different situations may depend on different actions by the student. It is useful to speak of fairly broad classes of situations or places. Two specifications of situations should be distinguished: (a) instructional settings and (b) specific characterizations of instructional materials. Examples of the first might be "short written documents in library carrels" or "motion pictures in classroom groups." Different patterns of mathemagenic activities may be expected to support the achievement of the same instructional objectives in these two settings.

For certain instructional objectives in the second characterization, it is feasible and useful to describe "instructional situation" in detail. For example, the specification of the instructional situation may consist of an effort to describe the organization of the instructional material. This has proven to be particularly useful in the analysis of the mathemagenics of written instructional materials.

In principle, the character of mathemagenic activities with regard to each instructional objective has to be discovered for each separate instructional situation or place. However, there are general classes of situations or places and classes of objectives for which a general description of mathemagenic activities may be made. An example of such a general class of situations is that of acquiring from written instructional materials the ability to verbally describe scientific principles.

Forms of Mathemagenic Activities

For the use of written instructional material, several classes of activity with mathemagenic significance may be distinguished:

Class I. Orientation—Getting the subjects into the vicinity of instructional objects and keeping them there for suitable time periods. In certain settings, this involves control over activities that may distract or disturb other students.

Class II. Object acquisition—Selecting and procuring appropriate instructional objects. Maintenance of selection and procurement activities.

Class III. Translation and processing—Scanning and systematic eye fixa-

tions on the instructional object; translation into internal speech or internal representations; the mental accompaniments of reading: discrimination, segmentation, processing, etc.

The mathemagenic activities in Classes I and II are of a gross, molar character, directly observable, and relatively easy to measure. Class III activities include only a few components that are directly observable, mainly those involving the extraocular muscles and the musculature of the throat and buccal cavity. Measurement requires a certain degree of technical sophistication. The remaining mathemagenic activities of Class III have the nature of hypothetical constructs, inferred indirectly from observations.

Discovery of the Mathemagenic Relevance of Activities

Activities of Classes I and II are mathemagenic if it can be shown by accepted methods of experimental inference that they are relevant to the attainment of the performance specified by an instructional objective.

For the indirectly observable components of Class III activities, matters are more complicated. When it is discovered that certain treatments influence the effectiveness of subsequent exposure to written material, without being themselves instructive, a hypothesis about the effect of the treatment of mathemagenic activity becomes attractive. Class III activities are hypothesized when it is clear that the instructional materials were at least within the perceptual range of the subject. Or to say this in a more exact way, Class III activities are hypothesized under the conditions stated earlier, if Class I and II activities have been observed to have occurred in instructionally adequate patterns.

The Nature of Category III Mathemagenic Activities

Class III refers to what is commonly called reading. Reading is a multilevel process. It seems useful to distinguish among three classes of actions: (1) translation, (2) segmenting, and (3) processing. The actions, from translation onward, represent progressively increasing independence from direct stimulus control. Actions at these three levels are also distinguished by progressive decreases, from translation to processing, in accompanying observable muscular activities. For convenience, the three categories will be described as "deeper."

All three categories have memorial consequences. Memorial consequences become more complex and enduring as the depth of the actions increases.

In learning from written material, actions at the three levels are thoroughly entwined. Because what one can observe is so limited, it would be difficult to disentangle the activities at various levels on any given occasion. The conception of different levels of mathemagenic activities is interesting because of the theoretical conjecture that activity at any given level may deteriorate until mathemagenic effects are nil or become negative. It is hypothesized that deterioration is always from the deep central level (processing) toward the peripheral (translation).

Translation

The first input for learning is created in the translation stage. This stage involves visual fixations on the written stimulus and some degree of vocalization. The muscles involved include the extraocular muscles and the musculature of the upper respiratory tract. The hypothetical component includes semantic decoding and the creation of internal representations. The pattern

of eye fixations varies widely in duration, location sequence, and spacing between fixation. Vocalizations vary from loud shouting to levels detectable only by electromyographic techniques with no ordinarily audible consequences.

Hypothetical components of Class III activities can, in part, be indexed by the observable activities of the translation stage. Translation has at least two states that differ in the frequency and regularity of eye movement and fixations. One state is characterized by infrequent and irregularly spaced fixations that identify scanning or skimming. The other state is identified by more frequent and regularly spaced fixation and associated with the acquisition of systematic skills from written material. Both can be conceived of as being classes of sampling operations. Other inferences about the translation processes and perhaps stages of Class III may become possible by mapping eye movements on text.

Segmentation

Segmentation is the motor equivalent of crude syntactical analysis. This aspect of reading activity serves to break the string of vocal and subvocal articulations produced by the translating activities. It may be conjectured that segmenting involves some of the musculature of respiration. The most likely candidate for a class of activities that accompanies segmentation is intonation and inflection in reading aloud.

The segmentation stage of reading establishes connection within the string of utterances or near-utterances that are produced in the translation stage. The activities of this stage result in the "belonging" effect. Segmentation describes a class of activities that results in linkage among terms although this linkage may not always be appropriate with respect to instructional goals. These activities are probably analogous or related to the prosodic or rhythmic patterns used in reading aloud.

There are at least two ways of conceptualizing the hypothesized segmenting activity in reading. One of these is that "interpretation" in some fairly deep sense precedes segmentation (or intonation). This view would be in keeping with the current Zeitgeist in psycholinguistic enclaves of experimental psychology, but I do not believe it is correct. The second conception is that segmenting is under relatively peripheral control and that segmentation provides the perceptual "priors" for various interpretation hypotheses.

The possibility exists that the translation and segmenting system are mutually interactive.

Processing

Processing is the third, deepest stage of the general reading process. It is the stage about which least is known. Processing is appealing as a theoretical locus where cross-sentence interpretation can take place and where review processes are initiated.

Control of Mathemagenic Activities

Classes I and II—During the last few years progress has been made in identifying some of the procedures for controlling Class I and perhaps Class II mathemagenic activities. In school situations with individual study settings, children's activities such as moving, sitting, attending, noise making, temper tantrums, etc., can be shaped, strengthened, and extinguished. A variety of instrumental conditioning procedures such as token reward systems have been used. It appears feasible to make these control procedures work in the usual school settings. It is therefore a little surprising that the so-called "centers of educational innova-

tions" have not given more attention to this work.

Class III. Directly observable components—The incidence of regressive eye movements and other eye movement patterns that indicate decreased reading efficiency during prolonged reading (4–6 hours) can be delayed by use of adjunct questions. Eye movement patterns in search can be modified by consequences and are probably under instrumental control. Some interesting indications of respondent enhancement and suppression of electromyographic potentials from the throat and face during reading were reported.

Hypothetical components—Substantial evidence is available that the deeper mathemagenic activities in Class III can be modified by directions and by the use of adjunct questions. The directions have been of two kinds: (a) directions of intent and (b) manipulative directions, particularly directions to search.

The experimental results on adjunct questions have not always been correctly understood. The first misunderstanding has to do with the experimental technique, the second with the interpretations of the findings. The adjunct question experiments at the Bell Telephone Laboratories were incidental learning studies. At the simplest level they involved measurement of performance changes on reading material that was not directly related to the test components on which the questions were based. Hence, any behavioral changes could not be attributed to the direct-instructive-effects of questions' content. The changes were ascribed to changes in presumed mathemagenic activity during inspection of the text. These activities were measurable by their effect on specified objectives as sampled by the criterion examination and are, therefore, of a positive mathemagenic character.

Several investigators performed experiments in which the criterion test was derived from exactly the same material as the question or in which the absence of transfer from the content underlying the questions to the content underlying the criterion test was not established. It is difficult to interpret results from these experiments because it can not be determined to what extent criterion test performance reflects changes in mathemagenic activities or the direct instructive effects of questions.

The second misunderstanding concerns findings. Nothing that has been reported from the Bell Telephone Laboratories experiments would support the conclusion that adjunct questions are always mathemagenically positive. In my opinion the most interesting result in the adjunct question experiments was that mathemagenic activities are adaptive. This means that mathemagenic activities can be altered by their consequences and that the shaping of mathemagenic activities in an instructional fashion by environmental events (or contingencies) is a practical possibility. This is not tantamount to the assertion that all mathemagenic activities are under instrumental control.

Status of Mathemagenic Activity as a Scientific Concept

Efforts toward early theoretical formalizations about mathemagenic activities would probably be both premature and presumptuous. Questions that seem to be of practical and scientific consequence include: What are the more critical student activities that affect what is learned in the more important instructional settings? What are the factors that modify mathemagenic activities? What causes positive mathemagenic activities to deteriorate? How can one give a coherent account of Class III activities that is consistent with what is known

about visual perception, memory and language processes?

Other than raising a number of scientific questions, the concept of mathemagenic activities suggests a general strategy for approaching the scientific management of instruction.

The concept of mathemagenic activities tends to shift emphasis from investment of resources in the development of instructional materials to investment in the instructional environment. This is, to a degree, contrary to the current Zeitgeist which has been characterized by careful design of instructional materials.

Efficient designs have been sought through applications of man's embryonic understanding of human learning processes. This approach, which I have also called "the calculus of practice," has received widespread vocal support, but has not been very successful. The other approach has been through the experimental validation of documentary instructional materials, i.e., systematic tryouts and revisions. Although this method has not been faulted in principle, it has not gained wide acceptance, probably because of economic factors in instructional publishing and also because of problems that arise in the choice of instructional objectives. When this method has been used in a thorough and conscientious manner, it has proven to be successful but very expensive.

The concept of mathemagenic activities suggests another approach. Emphasis in instruction is on promoting those activities in the student that will allow him to achieve instructional goals with available materials. This is truly a student-centered approach. How to manage this poses many practical problems but it may be a more economical than expensive concentration on the detailed design of instructional material.

A Controlled Comparison of Psychiatric Day Center Treatment with Full-Time Hospitalization: Interim Report

MARY HELEN MICHAUX, MARVIN R. CHELST, SHIRLEY A. FOSTER, and LOUIS R. SCHOOLMAN

As in the case of other treatment modalities, introduction and popularization of the day hospital concept were followed by a period of enthusiastic and impressionistic reports based on personal experience or clinical judgment. Evaluative research seemed unnecessary. Specialists felt under pressure to act immediately toward new and better approaches to community mental health. It is, thus, not surprising that evaluation of programs and facilities did not keep pace with their establishment.

The research reported in part here was designed to meet the need for empirical assessment of the effectiveness of psychiatric day center treatment. Patients treated in a rural day center were compared with a control group of inpatients considered suitable for day center treatment, but ineligible for admission because of catchment-area boundaries. The paper reports a comparison of treatment outcome for 30 consecutive day center admissions and 30 inpatients. It is titled "interim," because the sample includes only 60 of a projected 150 to 200 subjects.

The research setting—Springfield State Hospital is a 3000-bed psychiatric institution in Carroll County, Maryland, serving seven Maryland counties and approximately one-third of Baltimore City. The Carroll County Day Center represents a relatively new application of the day hospital concept to a previously agricultural county now in transition to partially suburban. Hospital and day centers are so related as to furnish unique opportunities for comparative study.

Subjects—Subjects were Carroll, Howard, and Washington County patients who in the judgment of the Carroll County Day Center Chief Psychiatrist were suitable candidates for day center treatment. Selection criteria were flexible. Any of the following patient characteristics usually precluded acceptance for day center treatment: under 18 years, dangerous to self or others, behavior consistently antisocial, addicted to alcohol or drugs, unable to care for person, admitted by court order, severely mentally retarded, or suffering from severe chronic brain syndrome.

All subjects assigned to day center treatment were Carroll County residents, and most frequently admitted directly from the community. Admissions to Springfield State Hospital from Howard and Washington Counties served as controls, i.e., received inpatient treatment. Hospital admissions summaries were checked daily by Research Department personnel for potential control subjects. Patients not clearly excluded by one of the above criteria were referred for screening to the Carroll County Day Center Chief Psychiatrist, who made the decision as to acceptance on the project.

Measures—Criterion instruments included: (*a*) Discharge Readiness Inventory (DRI), designed to measure outcome of treatment in terms of scaled capability of leaving the hospital, regardless of whether or not extraneous hospital and/or community factors permit the patient actually to be discharged, (*b*) Katz Adjustment

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Scales (KAS), standardized measure of symptoms and social adjustment completed by the subject and an informant, usually a close relative. (*c*) Inpatient Multidimensional Psychiatric Scale (IMPS), an 89-item behavioral rating device which measures differential treatment effects in terms of broad areas of psychopathology, symptom patterns, and individual symptoms. Each patient evaluation was based on information obtained in a joint interview by two clinical psychologists; final scores represent an average of their ratings. Subjects were rated by two of three participating clinicians. (*d*) Minnesota Multiphasic Personality Inventory (MMPI), a self-report instrument yielding finely calibrated measures of psychopathology. (*e*) Global Ratings—overall severity of illness was assessed by a global rating developed for use in the Psychopharmacology Service Center Collaborative Phenothiazine Studies. Patients were also evaluated in Adaptability (AD) defined as ability to meet environmental demands, and Discomfort (D) defined as anxiety and/or depression, verbalized or otherwise communicated. The sum AD+D was regarded as a further global measure of psychopathology. (*f*) Michaux Stress Index (MSI)—this device, a simple interview inventory, has been shown to have some value in predicting hospital readmission.

Patients were evaluated in all criterion measures when referred to the project and in all except the Katz Adjustment Scales and Michaux Stress Index just prior to return to the community.

Results

Significant posttreatment differences in favor of full-time hospitalization were found in DRI *Interpersonal adequacy* and IMPS *Impaired functioning*. The DRI factor termed *Interpersonal adequacy* is defined by the items: makes up his own mind; answers when talked to; engages in simple conversation; asks for help when it is indicated; makes himself understood when he speaks; remembers to do important things on time; reacts to what is said or done to him, e.g., defends himself; is not easily provoked; does not swear at people; and is not underactive. IMPS *Impaired functioning* includes scales measuring indecisiveness; inability to concentrate; fatigue; lack of interest; inability to get started; and reduction of sex interest. The final adjusted mean of day center patients was significantly higher than that of inpatients in the MMPI K scale. Initial and final means of both groups in this variable fell between the 45th and 60th percentile of the MMPI normative sample (female); thus the observed posttreatment difference, although statistically significant, is probably too small to be clinically meaningful. K is sometimes interpreted as a measure of personal defensiveness; patients who score high in the scale are said to deny symptoms of mental illness and to minimize both their own difficulties and the shortcomings of others. A high K score is seldom obtained by psychotic patients.

A total of 34 day center patients and 38 inpatients were admitted to the study during the period reported here. In the course of initial assessment procedures, three inpatients were found not to meet selection criteria; another did not complete 2 weeks of treatment, the stipulated minimum for a research subject. Three CCDC and two SSH patients left treatment against medical advice. One inpatient died (suicide); another has not yet been released from the hospital. One CCDC patient moved from the community.

Results cannot be explained in terms of significant group differences

in drug treatment, diagnosis, chronicity, or other measured outcome-related variable. In seeking to account for the superiority of full-time hospitalization in reducing *Impaired functioning* we noted that this IMPS syndrome closely resembles the outmoded "neurasthenic" pattern. The neurasthenic patient has been portrayed as suffering from chronic fatigue. He has difficulty in concentrating, lacks energy to undertake minor tasks, and cannot muster strength to complete work which he has started. Classically the etiology of neurasthenia has been said to be situational. This illness has been described as a psychological fatigue reaction resulting from sustained emotional stress with which the individual has been unable to cope. Fatigue is engendered by prolonged discouragement. If *Impaired functioning* represents a situationally induced pattern of symptoms, then it can be understood why inpatients fared better than day center subjects, who shuttled between two different environments—a situation which might have compounded existing stress. Followup data support such an hypothesis. At present, 28 day center subjects and 29 inpatients have completed the 2-month postrelease assessment; group means in *Impaired functioning* were not significantly different at that evaluation point.

With respect to posttreatment differences in DRI *Interpersonal adequacy* we have no ready interpretation.

This interim analysis revealed few advantages for psychiatric day center treatment. The effect of the location of CCDC on outcome of treatment is unknown; it seems reasonable to expect it to be negative rather than positive. Patients could have experienced day center attendance as coming to the hospital without getting full hospital treatment, especially those who had had previous inpatient treatment. Such an impression might have been strengthened by the fact that bus ((hospital-type) transportation was provided by the day center —of necessity, due to absence of public facilities.

The issue of what type of patient does well in which kind of installation cannot be approached until the project sample is complete. The day center sample included only nine schizophrenic subjects; nonpsychotic disturbances (11 patients) and major affective disorders (10 patients) were disproportionately frequent. The fact that advantages claimed for psychiatric day center treatment were not revealed may reflect the diagnostic composition of the sample.

No attempt was made to determine comparative long-term efficacy. The extent to which gains in treatment are retained in the community will depend on patients' use of aftercare facilities. In the present sample, 23 of 28 day center patients and 24 of 29 inpatients seen for a 2-month followup interview reported one or more aftercare contacts per month. Most frequently they saw a psychiatrist in a local mental hygiene clinic. Four CCDC and three SSH patients visited private physicians, usually general practitioners. One day center subject and one inpatient had relapsed and were in the hospital at the scheduled time of the 2-month followup evaluation. Posttreatment data were unavailable for one day center patient who had moved to another State.

Fathering: Research and Practice Implications

JERRY J. BIGNER

Regardless of theoretical postulations concerning the reasons *why* the father remains in the family group, there is a dearth of data concerning fathering per se and the isolation of those behavioral variables which make the role take on its significance.

Conceptions of Fathering

Traditionally, the concept of the father has been that of provider and head of the family group. With the shift from an agrarian to an industrial society, changes have occurred in the conceptions of masculinity, femininity, parenthood, and fatherhood. The change has been labeled as developmental in nature. Its elements are in contrast to the traditional concept of fatherhood and emphasize interest in the children as individuals.

The difficulties inherent in these conceptualizations are particularly evident in the case of men who are foreign-born, sons of immigrants, or members of lower socioeconomic classes. Because they have acquired a traditional concept of fatherhood, they feel that the man who loves his sons and demonstrates his affections is soft and nonmasculine. To counteract these feelings, these men become strict and harsh in interacting with their sons with the result being the development of "bullyish" traits in the sons.

In a study focusing on interviews with middle-class nursery-school children, girls more frequently perceived a "good" father as one who displayed affection, while a "bad" father was one who disciplined, failed in domestic matters, and was emotionally cold. Boys more frequently mentioned a "good" father as one who played with them and a "bad" father as one who disciplined them.

Whatever teaching the father does for his children is accomplished more by example than by precept. Many fathers feel inadequate in carrying out their roles, especially in such areas as discipline, companionship, and instruction of character traits to their children. This is accentuated in fathers who have been separated from their children, particularly during the child's preschool years.

Some researchers have argued that the middle-class father has a set of values and attitudes based on his occupational role, which serves not only to shape the expectations held for his children but also by which he evaluates their behavior. When fathers said they had "no plans" for their sons in regard to their occupation, it was implied that any occupation was suitable provided it was a middle-class occupation. A majority of fathers expected their daughters to marry. In evaluating their school-age sons' behavior, fathers focused on those character traits conducive to success in a middle-class occupational role, e.g., initiative, responsibility, etc. Fathers expressed more concern over male than female first-borns, and even less over later-born males. Fathers' attitudes and expectations differed toward sons and daughters.

Research on Fathering

Only two areas have received attention concerning the role of fathering: effects of the father-son relationship on masculine development; and the

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effects of father-absence on sex-role identification in boys and on family functioning. There have been no studies dealing with behaviors which might be thought to constitute the concept of fathering per se.

It has been found that sex-role development in boys is facilitated by a warm, rewarding, nurturant father who expresses interest in his son's development of aggressiveness and other culturally prescribed masculine traits. For the most part, studies investigating this topic have not utilized actual father-son interaction measures nor corresponding correlations between the masculinity of the father and of the son.

Three conditions necessary for the establishment of an optimally strong masculine identification in boys have been delineated: the model (father) must be perceived as nurturant to the child; the model must be perceived as being in command of desired goals, e.g., power, love from others, and as being competent in tasks which the child regards as important; and the child must perceive some basis of similarity of external attributes between himself and the model. The child, whose male identification model exhibits traditional masculine behavior, does not perceive a great degree of discrepancy between his behavior and that of his peers upon school entrance as does the child who identifies with a father who does not exhibit such sex-role behavior. Thus, the value of having a traditionally oriented father who manifests "appropriate" sex-role behavior is considered to be more of a necessity than a disadvantage to the child.

The lack of data on fathering is accentuated particularly in the area of father-daughter interaction.

Studies have shown that father-absence produces behavior problems as well as deleterious effects on intellectual and personality development. However, there appears to be some confusion concerning the effects of father absence on the male child and on family function. Psychological studies have found that father absence produces deleterious effects while sociological studies have tended to find no such effects.

Data from recent research support the possibility of the presence of critical periods in masculine development particularly during early childhood. Sex-role concepts appear to be difficult to change after the third year of life. The timing of the father's absence from the family appears to be a crucial variable in that subjects have been reported to be less masculine if the father's absence occurred during the first four years of life. The future difficulties experienced in sex-role identification by boys whose fathers were absent in infancy has been supported by cross-cultural data. These studies have found that many societies exclude the father from interaction with sons during infancy, emphasizing a close mother-son relationship. Masculine behavior became reinforced during preadolescence and adolescence, through initiation rite experiences. The resulting difficulty was a "sexual identification conflict" due to the repression of the feminine identification.

The relative feminization of males as a result of the absence of the father has been one of the more prominent findings in previous years. This finding has been cited by numerous authors who have presented data showing that male and female children experience deleterious personality development due not only to the father's absence but to changes in the mother's shift to more authoritarian child-rearing patterns. More recent investigations have reported finding no significant differences in sex-role preference or in mas-

culine behaviors between children with and without the presence of the father in the home. Discrepancies may be attributed to the methodological and theoretical differences between the various investigations.

Implications

Western society may be characterized as "mother-centered" in its child-rearing approaches and the rearing of children is considered to be largely a female responsibility. Since the mother plays an important role during the early stages of a child's development, mothers can aid this development by creating situations in which the father is encouraged to exercise his role. This might be accomplished through tasks which would be the sole responsibility of the father. An example would be bathing the children. Bedtime schedules can be easily arranged so that the father can be allowed at least some time during the day to be with his children.

A man usually considers his occupation to be the focal point of his fathering behavior. An attempt on the part of parents and teachers to increase children's understanding of what the father does during his working hours would be helpful in developing a concept of this aspect of the father's role. Preschool and elementary programs should include teaching units on fathers' occupations which include field trips to see fathers involved in their work. This unit may be tied with units on introducing children to the "community helpers," e.g., policemen, doctors, mailmen, etc.

The father's role in sex education should be emphasized. Parent and family life educators can aid parents by offering specific avenues of instruction on the "hows" and "whys" of this area of fathering.

Community programs such as Big Brothers of America, Boys' Clubs, YMCA Indian Guide, Scouts, and athletic programs provide opportunities for the involvement of boys and their fathers or father substitutes. These programs could aid in shaping the young boy's personality development as early as the second or third year.

Since preschool aged boys who lack consistent father-figures have been found to seek attention from almost any male, it would appear that preschool and elementary programs would achieve a greater impact on boys if more male teachers were involved. Preschool programs such as Project Head Start could aid father-absent children in their intellectual and personality development by employing male personnel.

The encouragement of older male siblings and peers to take an active role in fathering appears to be a plausible solution for younger father-absent children. Recent research has shown that an older sibling has an important role in aiding a child's sex-role development by acting as an additional role model.

There are many descriptions of therapeutic programs and techniques for working with children of father-absent homes. In addition, therapeutic groups such as Parents Without Partners have helped many mothers and children from father-absent homes.

The assumption made frequently that the mother has the major effect on the child's development and that the father's role has dubious importance is being tested by researchers. The father's greatest impact occurs primarily in those areas involving psychosexual, personality, social, and intellectual development. In essence, research has suggested that there is more to the parent-child relationship than that involving the mother and the child.

Divorce and Its Psychiatric Sequelae in Children

JOHN F. MCDERMOTT, JR.

The purposes of this report are to examine the characteristics of children seen for psychiatric evaluation at the University of Michigan's Children's Psychiatric Hospital from families which had been disrupted by divorce, to explore the possible specific relationships between these characteristics and the divorce experience, to follow immediate reactions into later transformation in character development, and to consider aspects of the association between family disruption and one form of psychosocial disturbance in delinquent children, with implications for preventive interventions.

The intake records of 1,487 children up to the age of 14 who were evaluated at the University of Michigan's Children's Psychiatric Hospital from 1961 to 1964 were examined. The children were divided into two groups: those whose parents were divorced (116) and those whose families were legally intact (1,349). Those in which the parents were separated but not divorced were set aside (22).

The first part of the study is a statistical comparison of the "divorce group" with the "intact group" with regard to certain common coded characteristics. The second part is an examination of individual narrative records for material directly relating to the divorce, and its relation to the developmental history of the child. The approach is one of giving impressions that stand out among subgroups of children rather than focusing on individual cases. Code sheets filled out at the time of the evaluation contained clinical and historical data recorded as 155 checklist items. Certain general characteristics and specific historical and clinical items were selected for comparison.

Because the material had been accumulated prior to the current study, certain vital information had not been coded, limiting the first part of the study. This included, for example, the length of time between the divorce and time of the evaluation and age of the child at the time of divorce.

The second part was limited because of the uneven amount of data directly related to the divorce found in the records. Obviously each child's disturbance is so complicated that one cannot completely disentangle the divorce from the rest of his experience. We attempted to find specific references and links between the child's behavior and the divorce which might suggest sources of his disturbance.

Within the large group of intact families examined statistically there were many who came from intact but seriously unstable homes. The impact of remarriage and acquisition of a stepparent, moves made by the family, effect of siblings relationships, etc, could not be considered systematically. There was no routine followup in our patient group, some receiving treatment and others not. And, perhaps most important, our divorce group is a selected sample of psychiatric patients, and we must be cautious about generalizing from these findings to the large number of children of divorce who are not psychiatric patients.

Both groups were homogeneous with regard to sex distribution. There were more only and first children in our divorce group, more Negro, and fewer Catholic children. More moth-

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ers worked in the divorce group and average family income was lower. This did not indicate a predominantly lower socioeconomic status in the divorce group, since in many instances there had been a decrease in income because of the divorce.

The duration of the presenting problem was shorter in the divorce than in the intact group; the symptoms had usually persisted for 1 to 2 years and most of the children were latency aged. The complaints are more sharply defined in the divorce group with identifiable maladjustments referable to home and school. This suggests that they are reacting to a more specific, acute, and recent stressful experience than the intact group. The divorce seemed to serve as a special stress dealt with through acting out rather than neurotic symptomatology, such as one might expect from a more typically acute traumatic event, e.g., parental death. This may indicate that more prolonged trauma exists, underscored by divorce and symptomatically expressed 1 to 2 years after it, a trauma that precedes and persists after the divorce experience, which soon becomes crystallized into character formation.

There is a cluster of symptoms (running away from home, very poor home and school behavior) which seems associated with the higher rates of established delinquency in the divorce group.

While some question the direct association between divorce and delinquency, most studies demonstrate that delinquent children more frequently come from homes broken by separation and divorce. It appears in this study that while significantly more legally delinquent children are identified in the divorce groups, there are also more *trends* toward delinquency, e.g., the community complaining about the child, and the greater severity of the maladjustments at home and at school pointing in that direction. What is the nature of this "delinquency," i.e., what is behind these symptoms in the children of broken homes? Predelinquent behaviors of relatively recent onset in latency may reflect the fact that the psychiatric evaluation itself snaps a picture of a sample of these children as they were moving toward a delinquent status. Those declared delinquent had been referred to a psychiatric clinic rather than handled only through the legal system, suggesting that there is an earlier, perhaps special connotation to their delinquent behaviors. Thus, it is important to follow the evolvement of "delinquency" in individual records to find if and how the symptoms were related to the divorce experience.

Let us consider, in addition to this externalized acting-out of conflict, that which was perceived by the evaluators as an internalized reaction, *depression*, which was found more often in the divorce group.

Depression—Depression, moderate, severe, or predominant in the clinical picture was coded in 34.3 percent of the divorce group and was found hidden or in mild degree in all individual records. It was rarely brought up by the parent, but was noted by the examiner. Sometimes the depression was overt: the child who constructed hangman's nooses, who threatened to swallow sharp objects, or who daydreamed of killing himself. Usually it was covert. In some children hidden depression was seen through accident-prone behavior, with many bicycle accidents, with children described as unconcerned with their own safety. More subtle were masked symptoms of fatigue and boredom. Running away from home was an effort to run away from depressive and hostile-aggressive feelings in the child and as he perceived them in others. Other reasons

for running away had to do with attempts for a reunion with the absent parent, sometimes with the articulated fantasy that if the child ran away it would make people notice him.

Recognizing the controversy among clinicans over the issue of depression in children, we will take a broad position that depression exists in various forms and may have several genetic roots in childhood and that acting-out behavior in some instances can be related to underlying depressive trends. In some cases we noted an alternation between inward depression and outward aggression. A 14-year-old girl said that she always was sad except when fighting at school. She tormented boys and said that she hated males except for her real father, and at school when fighting she was happy.

The depression seemed to be complicated, not a simple reaction to a loss of a parent or a family unit. The children usually had not been able to grieve for the lost family unit because of the divorce; they denied having cried or been unhappy. One boy indicated that he had thrown his old father into the garbage can and had ordered a new one. There was a common theme of children being small, weak, and vulnerable. Clinically, we usually saw only the attempts to assert oneself as "somebody" rather than remain in the helpless inconspicuous role of "nobody."

The child's involvement in the divorce—It was easy to see our children's needs to become responsible for the divorce. A child began to steal *after* the divorce, but then retrospectively falsified his behavior and indicated to the examiner that his stealing was the reason for the divorce. One child who overheard his parents shouting at each other felt it was because he had broken a dish, even though the child knew that it was because of the father's infidelity.

In some cases it appeared to be true at an unconscious family level that the divorce was associated with the child in a personal way, and it was not the child's own readiness to misinterpret the experience. Children with physical handicaps or serious illness seemed to be the focus. Many times the unwanted child's conception and birth were linked with increasing marital tensions leading to divorce, with reverberations in the child mediated through the remaining parent. Many children were made to feel acutely involved after the divorce when struggles over child support focused responsibility directly on them. Often the child saw the father's resistance to payment of alimony as a reflection of the child's own worth. Some conflicts over split alliances and divided loyalties were reality based, e.g., parents who sought the child's exclusive loyalty and enlisted him to spy on the other parent. These parents often talked with considerable suspicion about the plots of the other to take the children away. In the majority, this conflict was seen in the child because of internal pressures regardless of the external circumstances.

Identification problems—There were links between the presenting symptoms of the oedipal-aged children and their image of the devalued father which they appeared to be living and reenacting. Some children seemed almost forced into sexual acting out when they had had fathers who were described as "no-good," oversexed, and promiscuous. Many times the mother claimed that the onset of the child's symptoms followed a visit with the father after the divorce. Eleven children had run away immediately after a visit with the father—a father who had quit the family and himself set a precedent.

In many cases the mother forced

the child to follow in his father's footsteps as she saw those footsteps. Usually there was an unconscious conspiracy of both mother and child to recreate the lost father through the child's identification with his traits, leading to the mother-child struggles which brought them to the clinic. This seemed to provide a mechanism through which she could continue to punish the father through the child. In many cases the mothers indicated how much they realized at the time of the divorce (or just afterward) that the child closely resembled his father. Visiting relatives were struck by never-before-realized resemblances, as if there was a sense of reincarnation of the father through the child.

Sometimes there was direct displacement of attack upon the child—the mother who after the divorce said to her youngster "you are nothing but a dirty Jew and don't you forget it." Other deflections were subtle: a child described as a cheater, much like the father who had lost his jobs for dishonesty—the reason given for the divorce.

There appeared to be legendary exaggerations and projections built up layer after layer on these children, more easily accomplished because the father was gone but not really gone. The child internalized certain qualities once feared in the father's behavior which had heightened meaning at the time of divorce. At other times, one could note the grief-stricken, angry mother at the time of divorce wanting her child to be neat, clean, and "feminine," an extension of herself. The youngster tended to identify with qualities which had heightened and special meaning to everyone because of the conflict. These boys acted tough to avoid moving in passive directions and smart to avoid being helpless. The sudden change in masculine roles following the divorced challenged the boys prematurely in ways which were too threatening for them.

Superego development—During the divorce period, sudden changes in what was approved and disapproved occurred. The youngsters could not internalize parental moral demands over impulse expression while the parents were splitting up and acting out toward each other. It was as if parents were really not parents during that time. Custody battles involved the children through the parents' need to hurt each other. The children's convictions of a dog-eat-dog world, one in which others act on impulse, disregarding or violating the rights of others were only occasionally based on a real experience. It was the inner experience of the child which resulted in fantasies of beatings and murder, often then acted out by him. Often, however, there had been events which had stimulated these fantasies.

Our society provides a legal system and arena for obtaining divorce but little help in handling its consequences. Parental hostilities following the divorce often focus on the child. The legal process may contribute to and worsen, rather than help to solve, family problems in forcing lying, guilt, blame, and fault-finding, which may settle upon the child as the victim. Yet, changing reality alone will not be enough to prevent emotional disturbance in children. For while the law has moved in practice from identifying a guilty and an innocent party in divorce, this polarity continues in the attitude of children of divorce.

There is a large population of vulnerable children at the time of divorce who need sensitive assessment by mental health professionals within the framework of the family court, services which should be interwoven into the legal process, in order to work out immediate problems and to prevent more serious subsequent ones.

Changes in the Perception of Mental Illness and Mental Health

ALEXANDER C. ROSEN

A body of data suggests great difficulty in communicating mental health information to the public in programs of community mental health. A serious proportion of the public information resources and activities of mental health agencies has been directed not only toward the distribution of information regarding mental health issues but also in an attempt to modify attitudes toward mentally ill persons. There is agreement among mental health professionals that resistance to seeking treatment is in part a factor of, or influenced by, negative attitudes toward illness and mental disorders. Educational practices attempt to reduce this resistance by lessening the perceived distance by lay persons of the "difference" between the emotionally ill and the normally adjusted. Similarly, it was considered important to reduce the perceived difference in the perception of illness and health held by professional and lay persons.

Evidence is accumulating that the efforts of the conventional informational techniques through the mass communication media have been weakly received and tend to be less than effective. I have previously published findings that the lay public does not respond to, nor seem able to use public distributions of mental health information through the mass media, and that they do not make this part of their behavioral repertoire. Similarly, the lay population tends to see illness and health as being separate and in discontinuous categories rather than as a continuity of sickness and health, as frequently presented by mental health educators. They tend to see severe mental illness as being different and independent from the milder "disorders" and/or abnormality. The present study was concerned with use of techniques other than direct exposure in the public media which may be used for the modification of the perception of illness and health, and the modification of attitudes associated with mental health concepts.

The hypotheses are: (1) Direct participation in a learning process which involves an examination of interpersonal relationships and examines the individual's interaction in the interpersonal environment will be more likely to modify attitudes toward the individual's self-image and toward his model of mental illness and health than will didactic and content-oriented procedures. (2) Changes in attitudes toward mental illness and health are manifest not only in changes in attitudes toward the specific groups but also in changes in the individual's perception of difference and/or similarity between himself, normality, and selected mental health concepts. (3) Individual items, in changing, will change as a result of the more personal experiences, i.e., the more intensive personally oriented experiences toward greater capacity to admit to unfavorable images of oneself, as well as a more favorable image of individuals who are "mentally ill." Teaching sessions will be less effective in loosening ties of the self-image to an idealized model and making possible a more acceptable image of illness.

After prior testing and evaluation it was decided to use a 25-scale semantic

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differential instrument as the measure of change. All groups were asked to use the semantic differential instrument and the 25 bipolar scales to provide descriptions of a normal individual, a mentally ill individual, and three of the four groups were asked to describe an individual with emotional problems. In addition, three groups were asked to describe what they considered to be socially desirable behavior, two groups were asked to describe a person known personally to them as having emotional problems, and one group was asked to use the instrument to describe the patient suffering from schizophrenia who was the central character in a film "Out of Darkness."

There were four groups employed to illustrate three different types of attitude change experiences: A group of 72 participants in a 2-week intensive Human Relations Training Program at Bethel, Maine underwent a personal and dramatic experience which included twelve to fourteen 1½- to 2½-hour sessions concerned with group dynamics. These sessions emphasized self-understanding and the examination of normal behavior but no instruction about abnormality or deviance. A group of 67 persons went through a Sensitivity Training Program which consisted of a weekend in a conference center followed by nine weekly 5½-hour sessions in the evening and one all-day session. These sessions were given over to group discussion with few didactic presentations which were unrelated to illness and health. The major focus was as in the first group above. For a group of 16 students enrolled in a University Extension class in abnormal psychology, the author was the instructor. Course content included a survey of concepts of mental health, a review of personality theory, and a description of the etiology and symptomatology of various kinds of mental illness. A second group of 18 students in a similar lecture class in abnormal psychology was the fourth group.

The 25 bipolar scales are:

1. loyal—disloyal
2. aimless—motivated
3. useful—useless
4. colorful—colorless
5. friendly—cruel
6. fortunate—unfortunate
7. grateful—ungrateful
8. humorous—serious
9. impulsive—deliberate
10. repelling—attracting
11. tough—fragile
12. ignorant—educated
13. active—passive
14. shallow—deep
15. potent—impotent
16. free—restricted
17. stable—changeable
18. tenacious—yielding
19. rational—intuitive
20. orthodox—heretical
21. aggressive—defensive
22. complex—simple
23. cautious—rash
24. severe—lenient
25. excitable—calm

The findings are convincing and substantial. As measured by the 25-scale semantic differential, both participative emotional experiences and intellectual-cognitive experiences do little to modify abstract models held by individuals regarding mental illness and normality. Similarly one's evaluation of oneself is but little modified.

The implications for programs of community mental health seem to be clear. Findings are consistent with those of other studies examining outcome of informational programs; that is to say, these informational programs have little lasting impact on models of mental illness and mental health. The conclusions to be drawn are self-evident; community health programs ought to invest little of their time, energy, and resources in such educational efforts, and more in other productive areas such as case finding, crisis care, community management, and related direct help functions.

Psychiatric Illness in a Developing Country: A Clinical Study

Richard W. Hudgens, Maria Isabel de Castro, and Emma Aurora de Zuniga

Transcultural studies have shown that people in underdeveloped countries and in the subcultures of industrialized societies suffer from the same major types of psychiatric disorder that have been described in Western Europe and the United States. Affective illnesses, thought disorders, antisocial behavior, and so forth, have been described, although satisfactory diagnostic criteria are often lacking and surveys of comparative incidence are rare. Most workers in transcultural psychiatry agree that the forms of expression of these syndromes may be influenced by the cultural setting.

There is need for more systematic clinical, sociological, and epidemiological studies of psychiatric illness in various cultures, to the end that we may understand more about the nature of these syndromes, their incidence, and their relation to social and cultural factors. Such increased understanding is necessary for the organization of efficient programs for implementation of known methods of treatment; this is especially true in underdeveloped countries, where lack of money and personnel make it impossible to experiment with a variety of programs. Such studies are also necessary before mental health professionals can speak of preventing psychiatric disorders, of which the primary or contributory causes are largely a mystery.

These considerations have special relevance for Honduras which is seeking to improve its public health programs. These programs are inadequate to meet the needs of the country's rapidly growing population, and the development of psychiatric facilities has lagged far behind. The Ministry of Health and psychiatrists of Honduras requested the Pan American Health Organization (PAHO) to conduct a study of public mental health services. The investigation was carried out from June through August 1967, under the auspices of PAHO and the Department of Psychiatry of Washington University. This paper presents a clinical and sociological description of samples of inpatients and outpatients at the National Neuropsychiatric Hospital in Tegucigalpa, the capital city. This is the only institution for the care of psychiatric disorders in Honduras.

Patient Samples

The National Neuropsychiatric Hospital of Honduras had 1,079 admissions and 1,209 discharges (including 45 deaths) in the 12 months ending July 31, 1967. The average daily inpatient census was 443. The clinic attached to the hospital was receiving between 10,000 and 11,000 outpatients visits per year.

Three groups of patients were selected: group I was composed of 419 outpatients who received a short, structured interview; group II consisted of 188 inpatients consecutively admitted and/or discharged in a 30-day period, whose records were reviewed; group III consisted of 75 newly admitted inpatients whose records were reviewed and who received a complete psychiatric interview. There was overlap between groups II

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and III, in that 39 of the 75 completely inpatients of group III were also among the 188 consecutively admitted or discharged inpatients of group II.

Group I—Information was gathered on all patients seen in the outpatient clinic on 10 selected days. To insure a representative sample, we chose two Mondays, two Tuesdays, and so on, since the characteristics of patients sometimes differed according to the day of the week. There were 422 outpatient visits to the clinic on those 10 days (419 different patients). Each patient was interviewed by a member of the hospital's medical staff (a psychiatrist, general physician, or neurosurgeon), and information was recorded concerning age, sex, marital status, treatment history, address, occupation, present illness, mental status, physical and laboratory findings, diagnosis, current treatment, and disposition.

Group II—The senior author reviewed all records of each patient admitted from June 14 through July 13, 1967. One hundred and fifteen persons were admitted and 121 discharged. There were 188 different persons in the combined groups, since 48 were admitted and discharged in the interval. The following information was recorded: sex, age, marital status, address, occupation, dates of admission and discharge, diagnoses, present and past psychiatric and nonpsychiatric illness, social and family histories, mental status, physical examinations, laboratory findings, treatment, and disposition.

Group III—Seventy-five newly admitted patients were given a complete psychiatric interview by the senior author jointly with one of the other authors. These patients were chosen from among the group entering the hospital between June 10 and August 3, 1967—36 percent of the total admitted in that interval. We selected every third patient admitted between June 10 and July 11, and every second patient admitted between July 12 and August 3.

A structured interview requiring from 1 to 2 hours was administered. A chronological account of the present illness was recorded with specific data about onset, description of symptoms and accompanying life circumstances, treatment, and history of prior psychiatric disorders. Information was requested as follows: items concerning identification, age, address, and cohabitants of the patients' homes; questions concerning employment of the patients and other family wage earners; details concerning previous hospitalizations; important illnesses and injuries; use of medicines or drugs; imprisonment; marriages; children; interpersonal relationships; and family history of psychiatric illness, suicide, and homicide. There were 16 questions concerning use of alcohol. Finally, the patients were asked about the presence or absence of 47 symptoms at any time in their lives. If a patient responded positively to a question about a symptom, the symptom was scored "yes" when at least one of the following conditions was met: the patient asked someone for help or treatment because of the symptom; the symptom disabled the patient; or, the symptom seemed significant to the interviewer. Each positive response was elaborated with respect to quality, frequency, and chronology. Following each interview the authors recorded a description of the patient, employing a checklist of items concerning facial expressions, general appearance and dress, activity, speech, emotional expression, and memory and orientation. The patients were described in more elaborate fashion when necessary.

In addition, the senior author reviewed all hospital records of each in-

terviewed patient and recorded the significant data therein.

Transcultural Comparison

Clinical studies like the present one, using similar interviews and diagnostic criteria, have been carried out on the psychiatric services of the Washington University School of Medicine. This makes possible a diagnostic comparison between the Honduran inpatient and outpatient samples, and inpatients and outpatients at two different types of psychiatric hospitals in St. Louis. Diagnoses for interviewed patients from the Honduras study who were over 14 years old (335 outpatients from Group I and all 75 inpatients from Group III) were compared with diagnoses among the following interviewed St. Louis samples above age 14: 100 inpatients and 100 outpatients at Renard Hospital, the psychiatric division of the Washington University-Barnes Hospital Medical Center; and 200 emergency room patients and 171 inpatients at Malcolm Bliss Mental Health Center, an active-treatment Missouri State hospital.

Results

Outpatients

Among Group I, 14 percent were new patients and 86 percent had been seen previously. Only 13 percent had ever been admitted to the inpatient service of the Neuropsychiatric Hospital. The sample was predominantly female. Eighty-three percent of the total lived in or near Tegucigalpa. Average age was 29.8 years with 23 percent under 17. Of the younger group, 55 percent had epilepsy. Less than 4 percent were 60 years or older.

Treatment was sought, predominantly, by women with depression and by adults and children of both sexes with epilepsy. Sixty-one percent of the patients had one of those two disorders in typical form. Of the clinic patients with primary depression, 87 percent were women; but the proportion of females among epileptics was only 60 percent.

Almost half of the small group of patients with organic brain syndrome were presumed to have been damaged early in life. Treatment in all but one of those cases was sought because of seizures. There were few senile or arteriosclerotic patients.

Twenty patients were diagnosed as having a nonpsychiatric illness. This group included eight people who complained of headache but had no other symptoms of neurological or psychiatric disorder, and 12 with miscellaneous problems who should have gone to a general clinic.

The outpatients with undiagnosed psychiatric illness as a primary designation comprised a quarter of the sample. It is likely that some of these patients were suffering from typical disorders which we were unable to diagnose, either because insufficient information was entered on the short-form interview, or because the patients and families were poor historians. In other psychiatric studies using specific diagnostic criteria, it has not been unusual to find that over 20 percent of the patients do not fall into clear-cut diagnostic categories.

The 104 undiagnosed patients could be divided into three groups: the first consisted of 28 persons age 16 or older who had a history of a severe psychiatric illness for which they either had been, or could have been, hospitalized. Thirteen of the 28 had "recovered from psychosis." Only two were suspected of having an organic brain syndrome; none had epilepsy; and alcoholism was not mentioned in any case. The chief symptoms and the age and sex distribution demonstrated their similarity to that portion of the inpatient population with neither alcohol-

ism nor epilepsy. Thus the group was probably made up of persons having schizophrenia, affective psychosis, or a schizophreniform disorder.

The second group consisted of 14 children and adolescents (age 16 or younger) who had never been hospitalized. They presented a mixed picture of somatic and psychological symptoms, most being characterized as "anxious," and they differed from the typical young outpatient in that none had epilepsy.

The third group was comprised of 62 adults (over 16 years of age) who had neither been hospitalized nor had a history of severe, "psychotic" illness. The most common symptoms were headache in 71 percent, nervousness in 44 percent, unpleasant physical sensations (cold, hot, sweaty, itching, paresthesias, gas) in 26 percent, and dizziness or faintness in 24 percent.

We compared these 62 adults to 122 adult outpatients with primary depression who had never been hospitalized. The sex ratios of the two groups were not different, but the undiagnosed patients were an average of 5 years younger than those with primary depression.

The leading complaints in the depressives were low mood, headache, crying, insomnia, nervousness, tired or weak, and fear or worry. The undiagnosed adults had fewer complaints than the outpatients with depression, and presented a different pattern of symptoms in which anxious affect and somatic complaints assumed a significantly greater importance.

It seemed to us that many of the 62 undiagnosed and never-hospitalized adults would not have fitted into a precise nosological category even if more clinical information had been available. The data also suggested that if we had had more information, we would have been able to diagnose some as depression (with prominent somatic complaints), hysteria, or anxiety neurosis.

The inpatients were slightly older than the outpatients (33.1 vs. 29.8 years), and among them were fewer persons under 20 years of age. Also the inpatient group was predominantly male, and this difference between the two groups would have remained significant even if alcoholics had been omitted. Forty-three percent of the inpatient group, and 56 percent of the inpatients without alcoholism, lived outside the capital city; this was a difference from the small number of outpatients dwelling elsewhere.

The most notable findings were the high number of alcoholics, most of whom had a very brief hospital stay, and the low number of patients with uncomplicated depression. Despite the latter figure, affective syndromes were frequent: In addition to the 12 depressives, there were 4 manics, 15 patients with mixed manic and depressive symptoms in the current episode, and 18 with an acute affect-laden psychosis with hallucinations. Thus 26 percent of the sample had illnesses in which affective symptoms were predominant.

Completely Interviewed New Admissions

This group of 75 patients was representative of a group of 115 consecutive admissions, as demonstrated by comparing: their average ages, proportion of males to females, and percentage of patients in major diagnostic categories.

The large size of the undiagnosed group reflected the strictness of diagnostic criteria used. If the patients with probable schizophrenia and probable affective psychosis had been added to those diagnostic groups, then only 21 percent would have been undiagnosed. Like the consecutively admitted-discharged series, these new

admissions had a high incidence of affective syndromes.

Seven patients had significant disorders in addition to these primary diagnoses: three epileptics were mentally defective, and one had tuberculosis; one alcoholic had a chronic brain syndrome and another was addicted to sedative drugs; one patient with mania had tuberculosis; and one depressive had fractured his tibia.

The most impressive clinical feature among the newly admitted patients was the high incidence of heavy drinking among the men. The correlation between alcoholism and a history of arrest or prison was significant. These arrests were usually for public drunkenness, fights while intoxicated, and other direct consequences of alcoholism.

The history of major neuropsychiatric disorders among first-degree relatives was obtained from 71 of 75 interviewed inpatients who responded meaningfully to questions about family history; the high percentage with alcoholic relatives is notable. These 71 inpatients designated 18 relatives involved in killings and eight who suicided. All 18 committing homicide were males, and seven were probably alcoholics. Six suicides were men, and five were also heavy drinkers. The association of alcohol with suicide and homicide has been documented. Among the patients themselves, 17 had thought seriously of suicide, nine had attempted suicide; six had thought seriously of killing others; two admitted trying to kill other persons, but none admitted to actual homicide. Previous hospitalization for a psychiatric disorder was occasionally at private general hospitals, especially in the case of patients of some economic means. A higher percentage of alcoholics had been admitted to hospitals for nonpsychiatric disorders, which may be a reflection of the higher social status of alcoholics in this sample.

The alcoholics were better educated and of a higher occupational and financial status than the other patients.

We collected data on marital history and current living arrangements. Poorer people in Honduras are likely to forego the expense of a formal marriage. At the time of our study, 15 percent of the patients (35 percent of the females) were living in a common-law arrangement, and another 26 percent acknowledged past common-law relationships and had never married formally. Only 15 percent of the sample were officially married at the time of study, while 5 percent were widowed and 7 percent divorced.

There was no evidence that common-law unions were any less stable or taken less seriously than official marriages. All unions could be considered together in considering the "marital" history of patients. Of the 72 patients whose marital history was reliable, 24 had never had a spouse, while 35 had had only one and only 8 percent, more than two.

Of the 48 inpatients who had ever been married or had a common-law spouse, 15 percent were childless, 12 percent had one child, 48 percent two to four children, and 25 percent more than four. The mode was two children, the average three, low for a country whose birth rate is 4.5 percent per year. The mode was a household of four—patient, spouse and two minor children.

Transcultural Comparison

The majority of patients at the American institutions were from the St. Louis metropolitan area, city dwellers like most of the Honduran patients. Because Renard is a private hospital and Malcolm Bliss a State hospital, those treated at Renard were from higher levels of society than

those at Bliss, whose patient group more nearly resembled the Hondurans from a comparative socioeconomic standpoint. In order to make the samples comparable with respect to age, we eliminated all patients under 15 years old from the Honduran group.

The Honduras inpatient admissions and Bliss inpatient discharges were generally similar in diagnostic distribution. Compared with the Renard inpatients (who were of higher social status), there were more alcoholics, more schizophrenics, and fewer persons with uncomplicated depression in the Bliss and Honduras inpatient groups.

There were several differences between the Honduran inpatient and outpatient samples, and among the groups treated at the three psychiatric institutions considered in our transcultural comparison. Some of these differences merit discussion:

A high proportion of the Honduran outpatients were women with uncomplicated depression. There were few men in the clinic with this diagnosis: Most incidence surveys of depression give a female:male ratio of about 2:1; among the Honduran outpatients the ratio was 6.7:1. This may be explained partly by the reluctance of men to leave their jobs if they were not sufficiently disabled to be prevented from working. It was our impression that in Honduras men who suffered from depressive symptoms often treated themselves by drinking alcoholic beverages, whereas women seldom drank heavily and were more likely to seek help from curanderos, or to go to a physician for standard medications.

Among inpatients, the proportion of persons with simple depressions was lower in the samples from Honduras and from Bliss (the American State hospital) than from Renard (the American private hospital). At the Neuropsychiatric Hospital of Honduras, patients with affective disorders were not admitted unless they were quite ill—stuporous, extremely agitated, delusional, hallucinating, or suicidal. It was common to see women in the outpatient clinic who were sick enough to be admitted to any American or Honduran private hospital, but who continued for many weeks as outpatients at the public Neuropsychiatric Hospital.

One common disorder that seemed underrepresented in the Honduras clinic was anxiety neurosis, which has an estimated prevalence in the population of the United States and some European countries of 5 percent or more. Many patients with anxiety neurosis might have attended the medical clinic at the nearby public general hospital rather than the psychiatric outpatient service, since dyspnea, palpitations, and chest pain are the chief symptoms, and such patients often consider that they have heart or lung disease. The same might have been true of patients with hysteria, a chronic disorder manifested by multiple physical complaints. In our transcultural comparison, we found more hysterics and anxiety neurotics among the Renard Hospital outpatients than among either the Honduras or Malcolm Bliss samples. This suggested that patients with those disorders may be more likely to attend a psychiatric clinic if they are from relatively higher socioeconomic levels.

More sociopaths were seen at the American State hospital than at the private hospital or the Honduran institution. To some extent this was related to the presence of a Social Maladjustment Unit at Bliss, where people charged with crimes received psychiatric evaluation. But it also reflected the fact that, in the lower social strata of St. Louis, there was a

significant incidence of sociopathy, and that these cases came to medical attention through suicide attempts and abuse of drugs and alcohol. The low incidence of sociopathy among the Honduran patients could have been due to a different method of handling sociopaths with psychiatric symptoms in Honduras (e.g., jail), or some sociopaths might have been "hidden" in the alcoholic sample of Honduran inpatients.

The Honduras outpatients differed from both St. Louis outpatient samples with respect to the higher percentage of epileptics. This was because there were no other facilities for seizure control in Honduras, as opposed to St. Louis.

The high number of alcoholics entering the Neuropsychiatric Hospital was partly due to the policy of admitting many such patients for the purpose of withdrawing them from alcohol. Until about 1965, alcoholics were not admitted unless they were suffering from serious complications. However, requests from Alcoholics Anonymous groups in Tegucigalpa resulted in a more liberal admission policy.

Even when we took into account the liberal admission policies for alcoholics, we were impressed by the prevalence of heavy drinking among men treated for psychiatric disorders, and among the male relatives of patients with various diagnoses, especially relatives who committed suicide and homicide. The Honduran psychiatrists stated that alcohol abuse was common among males at all social levels and that it was a serious public health problem. There seemed to be need for a wider investigation of alcoholism and the social and economic effects of drinking in Honduras, both among the poorer classes—who seldom receive psychiatric care for alcoholism—and among professional and white-collar groups.

The suicide rate reported for Honduras in 1963 was 3.8 per 100,000, while the homicide rate was 64.5. It was the impression of Honduran psychiatrists and other health officials that homicide, usually occurring in fights between intoxicated men, was much commoner than suicide. In spite of this, our data suggested that suicide was not a negligible problem in Honduras. Despite the low suicide rate for Honduras, there was no evidence that suicidal preoccupation and attempts were less common than among one carefully studied group of psychiatric patients in the United States. Perhaps suicide was underreported in Honduras.

Effects of Punishment on Catecholamine Release and Efficiency of Performance

MARIANNE FRANKENHAEUSER and ANITA RISSLER

It has been shown that adrenaline output is increased in subjects exposed to stressful or threatening situations. The amount excreted reflects the intensity of the reactions evoked. Adrenaline output is related not only to unpleasant experiences associated with stress, but to pleasant emotional reactions induced by amusing or exhilarating events. Thus, the empirical evidence is consistent with the view that adrenaline secretion is related to the intensity of emotional reactions, while the quality of the emotion is determined by other influences, such as cognitive and situational factors. With regard to noradrenaline output, the data do not permit conclusions as to relationships with psychological parameters.

A positive relationship between intensity of emotional reaction and adrenaline release is typical of situations in which the subject acts as a passive recipient of stressful influences. When the subject is trying to cope with the stressors to which he is exposed, the relationships are more complex. Under these circumstances his success in mastering the situation will influence the emotional and the hormonal response.

The aim of this investigation was to examine further the interactions between catecholamine output and different aspects of performance efficiency under various conditions, with special interest to effects of variation of the amount of control over the situation exerted by the subject.

Forty male university students participated. They were randomly assigned to two groups of 20 subjects, Groups A and B. The subjects came to four 90-minute sessions, separated by 1 week. Sessions I and IV represented two different passive conditions, in which the subjects in both groups received the same treatment. Sessions II and III represented active conditions in which the two groups were treated differently. Each subject had his sessions at the same hour, preventing diurnal variations in physiological functions.

Session I was characterized by anticipation of electric shocks, the subjects being unable to influence shock administration. They had been informed that a change in heart rate would release a shock; in fact, shocks were given according to a predetermined schedule.

In Sessions II and III subjects performed a choice-reaction task; Group A was punished for slow performance, Group B was not. For Group A, Session II was designed so as to induce a feeling of control over the situation by informing the subject that he might be able to avoid shock by rapid response; in fact, 40 percent of his reactions were punished regardless of performance. Punishment consisted of electric shock or a red signal indicating failure to respond within the time allowed.

For Group A, Session III was designed so as to induce a feeling of a relatively high degree of control by increasing the subject's possibilities to avoid shock by rapid response. He was informed that no shock would be given if he responded within a period which exceeded his mean reaction time (as determined in preliminary trials) by 350 msec. Under these circumstances only 2.5 percent of the reactions were punished.

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In Group B, the subjects were instructed to perform as accurately and rapidly as possible in Sessions II and III. There was no punishment or threat of punishment. Session IV was a relaxation period, to provide baseline values for catecholamine output. All subjects spent the session in the laboratory reading magazines. No measurements were made during the session. Urine samples were collected after the session.

Electric shock—Stimulation was applied to the subject's fingers. Two fingers of one hand were immobilized, each in a glass cup containing a solution of 0.9 percent NaCl. Shock intensity was based on individual sensation threshholds.

Choice-reaction task—Four white light signals were used to produce four stimulus patterns, each containing two or three signals. The subject responded by pressing one of two buttons. After instructions, the subject had two preliminary trials without punishment and four test trials in which Group A received punishment. Each trial contained 150 stimuli. The time score for each trial was the mean of 150 reactions, and the error score was the sum of wrong responses.

Catecholamine excretion—Before each session the subject emptied his bladder, and at the end of the 90-minute session urine samples were collected by voluntary voiding.

Heart rate—In sessions I, II, and III beat-to-beat intervals were continuously recorded by an ink-writer, one electrode being attached to each arm and a reference electrode to the right leg. The number of beats during every third minute was read off the record, and the score was the mean number of beats/minute.

Blood pressure—In Sessions I, II, and III systolic and diastolic pressures were measured by the sphygmomanometric method. Measurements were made every 15 minutes, and the score was the mean of 6 measurements.

Subjective reactions—In Sessions II and III the subject estimated the amount of unpleasantness and alertness experienced, using a graphic scale.

Results

Catecholamine excretion—Adrenaline excretion in both groups of subjects decreased successively over sessions. Noradrenaline excretion was lowest in Session IV in both groups, but otherwise no systematic tendency was seen.

In Group A and in Group B differences in adrenaline output between sessions were significant. Session III, however, did not differ significantly from Sessions II or IV.

In Group A differences in noradrenaline output between sessions were significant. Session IV differed significantly from each of the other sessions while differences between the other sessions were not significant. In Group B differences between sessions were not significant.

Thus, the overall pattern that punishment produced a rise in both adrenaline and noradrenaline release, and that the rise in adrenaline, but not in noradrenaline, was counteracted by increasing the degree of situational control exerted by the subjects.

Heart rate and blood pressure—Differences between the groups were in no case significant. Differences between sessions were significant for systolic pressure in both Group A and Group B. There was also a significant interaction in systolic pressure, in Group A being lower and in Group B higher in Session I than in Session II.

Performance in the choice-reaction task—Choice-reaction time was significantly shorter in Group A, where slow performance was punished, than in Group B. In Group A there was no marked difference between sessions,

while in Group B the subjects were significantly quicker in Session III.

Errors were significantly fewer in Group B, where the instructions emphasized accuracy rather than speed. Within both groups the number of errors was significantly smaller in Session III than in Session II.

Speed of performance was about the same in the two groups initially, but as soon as punishment was introduced in Group A, speed was much more increased than in Group B. At the beginning of Session III, following a 1-week interval, performance was slightly quicker in Group A initially but, punishment was accompanied by a pronounced decrease in choice-reaction time, while but little improvement was noted in Group B.

The number of errors was about the same in Groups A and B in the first two trials where the treatment was the same. However, punishment of slow responses in Group A was accompanied by a drastic increase in errors. In Group B there was no pronounced change over time, but errors remained infrequent after the initial training.

Subjective reactions—Mean self-estimates of unpleasantness and alertness were somewhat higher in Group A than in Group B. The differences were not significant. Comparisons within groups showed that alertness estimates were significantly higher in Session II than in Session III in both groups while estimates of unpleasantness did not differ significantly between sessions.

Relations between catecholamine excretion and performance—The general picture indicated a positive relationship between the amount of catecholamines excreted and efficiency of performance, in terms of both speed and accuracy. These relationships were examined further by comparing time-response curves in the choice-reaction task for subjects with high vs. low catecholamine-excretion rates. The subjects in Group A were divided on the basis of their mean excretion rates in the two performance sessions into a high-adrenaline group (above the median) and a low-adrenaline group (below the median) and, into a high- and a low-noradrenaline group. The subjects in Group B were similarly divided.

In Group A choice-reaction time was shorter in the high-adrenaline group than in the low-adrenaline group and, in the high-noradrenaline group as compared with the low-noradrenaline group.

In Group B the number of errors was consistently smaller in the high-adrenaline group than in the low-adrenaline group and in the high-noradrenaline group as compared with the low-noradrenaline group.

These experiments were designed so as to permit a systematic variation of degree of uncertainty vs. control over the situation. It was shown that a situation characterized by uncertainty and unpredictability produced an adrenaline response which diminished as uncertainty decreased, i.e., when the subject gained better control over the situation. The design does not permit habituation effects to be distinguished from the situational control, but it is reasonable to assume that increased familiarity with the situation contributed to the decrease in uncertainty. With regard to noradrenaline output, all conditions gave rise to about the same increase, irrespective of the variations in degree of control exerted by the subject. Thus, noradrenaline release remained at a slightly elevated level while the subject was engaged in an attention-demanding activity. These results agree with findings in earlier investigations involving, for example, repeated exposure to gravitational stress and perceptual conflict.

Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment, and Rehabilitation Act of 1970

The "Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment, and Rehabilitation Act of 1970" was signed into law (P.L. 91–616) by President Nixon on December 31, 1970.

The law establishes the National Institute on Alcohol Abuse and Alcoholism within the National Institute of Mental Health. The new Institute will administer the programs under this new law as well as appropriate parts and sections of the Community Mental Health Centers Act and the Public Health Service Act. The Institute will be under the direction of a Director appointed by the Secretary of DHEW.

Title II of the law is concerned with alcohol abuse and alcoholism among Federal civilian employees, and requires that the Civil Service Commission, in cooperation with other agencies, develop and maintain prevention, treatment, and rehabilitation programs and services for Federal civilian employees. It also stipulates that no Federal civilian employee may be denied employment solely on the ground of prior alcohol abuse or alcoholism (except employment in certain national security or sensitive positions). The Secretary, through the Institute, is responsible for fostering similar programs in State and local governments and in private industry.

Federal assistance for State and local programs is provided through "formula grants" and "project grants and contracts." For the formula grants, $40 million are authorized for fiscal year 1971, $60 million for fiscal year 1972, and $80 million for fiscal year 1973, for grants to the States to assist them in planning, establishing, maintaining, coordinating, and evaluating projects for development of more effective prevention, treatment, and rehabilitation programs. States wishing to participate in this part of the program must submit a State plan, designating a single agency to administer the plan, and including such items as evidence that the agency will have proper authority, designation of a State advisory council, survey of need for prevention and treatment of alcohol abuse and alcoholism and of health facilities, and other administrative considerations.

Project grants and contracts are provided through amendment of the Community Mental Health Centers Act specifically to cover prevention and treatment of alcohol abuse and alcoholism, with authorizations of $30 million for fiscal year 1971, $40 million for 1972, and $50 million for 1973.

Although these figures represent authorized appropriations, the funds do not become available until the appropriations bills for the specific fiscal years have been passed by the Congress and signed by the President.

The new law requires that alcohol abusers and alcoholics be admitted to and treated in private and public general hospitals that receive Federal funds for alcoholic programs on the basis of medical need, and not be discriminated against solely because of alcoholism.

The Public Health Service Act was amended to create the National Advisory Council on Alcohol Abuse and Alcoholism, which will advise, consult with, and make recommendations to the Secretary, including review of research projects or programs.

Mental Health News Digests

Interagency Agreement on Alcohol Abuse

An interagency agreement to combine resources in combating alcohol abuse and alcoholism was announced by Elliot L. Richardson, Secretary of Health, Education, and Welfare, and John A. Volpe, Secretary of Transportation.

The Secretaries pledged full support to a program to develop local resources against alcohol abuse and to a campaign to inform the American public of the dangers of irresponsible drinking, including the role of alcohol in the Nation's traffic death toll.

"Our most recent estimates," Secretary Richardson said, "disclose that some ten million Americans are dependent on alcohol—a shocking figure that yet does not begin to reveal the damage to the Nation in terms of alcohol-related disease, broken families, economic ruin, and death. Clearly a concerted Federal response to this challenge is overdue."

The Department's alcohol programs are centered in the National Institute of Mental Health of the Health Services and Mental Health Administration.

"The American public is concerned about crime in the streets," Secretary of Transportation Volpe said, "but often fails to recognize the greater problem in terms of death and injury produced by crime on the roads—the crime of drunk driving. The Department's National Highway Safety Bureau estimates that some 50 percent of all traffic fatalities are related to alcohol. And it appears that chronic problem drinkers, not social drinkers, are most to blame. How much longer will we tolerate this?"

The formal agreement sets up a mechanism for technical assistance, policy coordination, and transfer of funds between the two Departments. Two areas of concentration will be the establishment of DOT's "Alcohol Safety Action Programs" (ASAP), a plan for community action programs all over the country and HEW's effort to support community treatment and rehabilitation programs for problem drinkers.

The first visible result of the interagency collaboration, however, will be a series of radio, television, and newspaper and magazine advertisements produced for the cooperative nationwide information and education campaign on alcohol abuse. First release of materials, patterned after the widely used drug abuse advertisements, is expected by summer 1971. Other phases of the campaign will see the production of films, publications, and other materials for teachers, students, parents, and local organizations working to curb alcohol misuses.

Center for Minority Group Mental Health Programs

A Center for Minority Group Mental Health Programs has been established within the National Institute of Mental Health. It will serve as a focal point for all activities within the NIMH that bear directly on meeting the mental health needs of minority groups, including programs of research, training, services, and demonstration projects. The new Center, with a staff recruited from minority groups, will provide additional channels of communication between NIMH and minority communities, which will aid the Institute in developing and conducting a comprehensive program to help meet the mental health needs of minority groups in the United States.

The Center will administer programs of grant support for research to

develop increased knowledge of minority groups, their relationship to other groups, and the particular mental health concerns in their communities.

It will also support projects designed to prepare minority group members for professional and paraprofessional careers in the mental health field. The Center will be part of NIMH's Division of Special Mental Health Programs.

Training Program for Mexican-American Mental Health Workers

A ceremony at the Plaza Community Center in Los Angeles on January 9, 1971 marked the inauguration of the "Chicano Training Project," a new program for the recruitment and training of Mexican-American mental health workers. Speakers at the ceremony were the Honorable Elliot L. Richardson, Secretary of Health, Education, and Welfare; Dr. Bertram S. Brown, Director of the National Institute of Mental Health; Estaban Torres, President of the Congress of Mexican-American Unity; Dr. Maurice B. Hamovitch, Dean of the School of Social Work at the University of Southern California; Dr. John Hubbard, President of the University of Southern California; Dr. Charles Young, Chancellor of the University of California at Los Angeles; and Elias Chico of the East Los Angeles Health Task Force.

The program, financed by a 3-year NIMH grant to the School of Social Work at the University of Southern California, is cosponsored by the University of California at Los Angeles and the Trabajadores de la Raza, a Mexican-American association of social workers active in the Southwest and West.

The funds will be used to help plan and establish a new training facility located centrally in the area, principally East Los Angeles, with the heaviest concentration of Mexican-American citizens. Focus will be on preparing students to participate in the development of new systems of delivery of services in a disadvantaged community through aiding in the creation of new patterns and new relationships in health services and related agencies.

Practical experience, working in the Mexican-American community from the facility based there, is a major element in the training program as well as classwork and special studies at the cooperating universities.

Among the issues that the trainees and their leaders will tackle in the program's problem-solving approach are the definition and analysis of social problems in the area, identification of services essential to the solution of these problems, and the implementation necessary to creating the needed patterns of services and seeing that they reach the people.

The new project is also expected to help serve as a model in the development of other programs for training mental health workers for disadvantaged communities and people.

Staff Training in Cross Cultural Anthropology

The Alaska Psychiatric Institute has started a staff training program in cultural anthropology. It will involve all employees in the hospital to provide better care, especially for Eskimo, Indian, and Aleut patients, who make up about half the patient load. The program will provide inservice training for the clinical team, nursing staff, and supporting services.

Emphasis will be on increased knowledge of native cultures, cross cultural anthropology as it applies to psychiatry, training in communications skills, and providing all employees with a better understanding of the

role of the patient in his village. It will also stress social problems of the villages, acceptance with which a patient is met upon return from the hospital, and factors that can contribute to rehabilitation, and ability to maintain good mental health outside the hospital. Staff will visit native villages to observe social problems and attitudes first hand.

Director of the program, which is supported by an NIMH grant, is Dr. Mitchell Wetherhorn, head of the psychology department at the Hospital. (From *Alaska's Health, Welfare and Corrections,* Oct. 1970)

Training Program in Community Colleges

A new training program will aid community colleges to train more young people for careers in the field of mental health as aides and paramedical professionals. Priority will be given to institutions that train disadvantaged students or train students for service to groups not receiving adequate mental health services.

The program will lead to an Associate of Arts degree or its equivalent. The colleges will select the trainees themselves and will need to demonstrate the availability of employment possibilities for their graduates following the training period. Pilot programs of this kind have been successful in training mental health workers and placing them in jobs.

The program is administered by the Division of Manpower and Training Programs of the National Institute of Mental Health. Grants will be awarded at a level of support up to $30,000 for the first year, and $25,000 for each of three succeeding years. Institutions currently training mental health personnel at the Associate of Arts degree level may apply for funds up to $15,000 per year for a 4-year period to strengthen existing programs.

President's Task Force on the Mentally Handicapped

In December 1969, President Nixon appointed a group of citizens to serve on a task force to review the field of the mentally handicapped and make recommendations for legislative or executive action. A recently published 68-page booklet describes the work of the task force and presents the recommendations. The 35 recommendations include:

Establishment of a Joint Council on Disabilities, bringing together the President's Committee on Mental Retardation and two new committees, a President's Committee on Mental Health and Illness and a President's Committee on Physical Disabilities.

Increased support of birth control research, dissemination of information, and availability of birth control measures.

Availability of prenatal and perinatal services for all who need them.

Establishment of a system of universally available day care centers.

Expansion of programs for early detection of problems of social adjustment and intellectual competence.

Two approaches to better informed parenthood—parental education and education for parenthood.

Expansion of programs and facilities for the mentally retarded.

Continued expansion of comprehensive community programs, with special attention to mental health problems of children and youth, including abuse of drugs and alcohol.

Establishment of community geriatric programs.

Substantial increase in Federal resources to combat drug abuse and alcoholism.

Encouragement of employers, organized labor, and government in programs for mentally disabled workers and their families.

Increased availability of special education services.

Improvement of institutional services and setting of quality standards.

Increased support of vocational rehabilitation.

Greater publicity concerning the needs of the mentally disabled for employment and their value as employees.

Increased emphasis to crime and delinquency as a mental health problem.

Special attention for mentally ill and mentally retarded offenders.

Review of laws concerning the mentally ill and mentally retarded and preparation of model mental health and mental retardation acts.

As block grants develop, provision be made for allocation for programs for the mentally disabled.

Study of administrative relationships among Federal, State, and local governments in field of mental disability with recommendations for their improvement.

Continuation and strengthening of the National Institute of Mental Health as a unified comprehensive operation.

Review of organization of mental retardation services in the Department of Health, Education, and Welfare to establish more effective coordination and greater visibility.

Review of mental disability services, by the Joint Council on Disabilities, at the interdepartmental level.

Initiation of program to train State and local officials to plan and administer programs for the mentally disabled.

Removal from Medicare and Medicaid laws of all provisions discriminating against the mentally disabled.

Close surveillance by Federal officials of national health insurance field to assure adequate provisions for the mentally disabled.

Special study of total financing of programs for the disabled, including public and private sources and development of a continuing mechanism to make such information available.

Increase in funds for research into causes and treatment of mental illness and mental retardation.

Attention, by Office of Education, to learning disability, biomedical aspects of learning, and education of emotionally ill, mentally retarded or otherwise disabled children.

Significant increase in resources for biometric and epidemiological research.

Availability of funds for staffing mental health and mental retardation centers, for training, and for increasing the number of centers.

Appointment of a committee to consider a proposal for an academy of human services.

Study of the desirability and feasibility of establishing a universal public service system, exploring the idea that all Americans, somewhere between ages of 17 and 19, serve their country for two years in one of a variety of areas.

Increasing of voluntarism and programs for volunteers.

Review of public attitude toward mental disability by the Joint Council on Disability and recommendations for improvement.

Copies of the report may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402 for 35 cents.

Project Crossroads

Project Crossroads is a pretrial diversion program for youthful offenders. Sponsored by the National Committee for Children and Youth and funded by the Department of Labor, it has been in operation since 1968 on

an experimental and demonstration basis. It was felt that certain young arrestees could be diverted from the criminal justice process through a career development program, using employment, training, and other supportive services. The program has been so successful that it has become an integral part of the court system in the District of Columbia, and the entire nonprofessional staff of the project has been put on the court's payroll. The court plans to retain the autonomous and flexible nonbureaucratic character of the project.

The participants—male and female first offenders charged in the Juvenile or General Sessions Courts of the District of Columbia—have adjudication of their cases deferred for 3 months. During this time the participants are given employment, training, educational assistance, and intensive counseling. If a participant gets into further trouble during this period or if he shows no interest in employment or education, he is terminated and returns to the normal court process without prejudice. But if he stays out of trouble, improves his education, obtains a job with the project's help, and shows improvement in his attitude and behavior, the staff recommends that charges be dropped, thus sparing him a possible conviction and establishment of a record that follows him throughout life.

The "Final Report on Project Crossroads—Phase II" may be ordered from the National Committee for Children and Youth, 1145 19th St. N.W., Washington, D.C. 20036.

"CLOP" in Pennsylvania

CLOP—the Community Living Opportunities Program—has been in operation for more than 2 years at Harrisburg State Hospital. The purpose of the program is to acquaint or reintroduce the long-term patient who has an opportunity to leave the hospital with the daily life activities that he may face at home or in the community. No more than 10 patients are assigned to the program for a period of 10 weeks.

CLOP's program is based on seven major areas, topics, and skills: Personal appearance and appropriate conduct; socialization skills; getting acquainted with community facilities; homemaking skills; budgeting of time and money; appropriate leisure time interests and hobbies; motivation for employment and responsibilities of having a job.

The physical facilities include a large kitchen and dining area and a combination living room, sewing room, and office. The patients spend about 6½ hours, 5 days a week on the project. At least once a week participants and staff make trips to town to shop, visit museums, attend concerts, etc. The project director is Byron Firestone. (Condensed from *The Challenge,* Vol. 13, No. 5, 1970—a publication of the Pennsylvania Department of Public Welfare)

"Can Help" in Kansas

"Can Help" is a 24-hour telephone service provided by the Mental Health Association of Shawnee (Kansas) County under a contract to the Shawnee Community Mental Health Corporation as part of its comprehensive mental health program. Funding comes from the county mental health tax levy. The service is manned by volunteers who have taken a 16-week training course. Each volunteer serves a 4–8 hour shift per week, plus one in-service training session a month. (Condensed from *The Statesman,* the employees publication of Topeka (Kansas) State Hospital)

recent nimh publications

Single copies of these publications may be obtained from the Office of Communications, National Institute of Mental Health, LL02, 5454 Wisconsin Ave., Chevy Chase, Maryland 20015. A complete list of all publications available from the NIMH may also be obtained from the Office of Communications. If a price is given, the publication may be ordered in quantity from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Enclose a check or money order payable to the Superintendent of Documents.

Youth in Turmoil: America's Changing Youth Cultures and Student Protest Movements. This 250-page monograph, written by Jack D. Douglas, Ph.D. under contract to the NIMH, was prepared to cast student protests and disturbances within a broad and informed framework. It also considers the question, "What is to be done?" Public Health Service Publication No. 2058. $1.00

Cognitive and Mental Development in the First Five Years of Life. This is a 120-page review of recent research, sponsored primarily by the NIMH, written by Philip Lichtenberg, Ph.D. and Dolores G. Norton, Ph.D. under contract to the NIMH. It is not simply a record or listing of major findings of the investigators, but rather an attempt to identify and correlate the ideas, themes, perspectives, and issues emerging from the studies which can be useful in the formulation and evaluation of social policies related to infant and child development. Public Health Service Publication No. 2057. 55¢

Behavioral Sciences and Mental Health: An Anthology of Program Reports. This 427-page anthology is a collection of 25 program reports from the NIMH Program Reports series, selected and arranged to represent some of the major contributions of the behavioral sciences to the field of mental health. It also includes a summary of the NIMH role in the behavioral sciences. Edited by Eli A. Rubinstein, Ph.D. and George V. Coehlo, Ph.D. Public Health Service Publication No. 2064. $2.00

Psychopharmacology Bulletin. Vol. 6, No. 4, 1970. This issue of the *Bulletin* includes a description of the International Reference Center for Information on Psychotropic Drugs; Reports at a Workshop on Clinical and Methodological Considerations in Psychotropic Drug Evaluation with Schizophrenic Patients; Résumés of Research Projects in Psychopharmacology, and Early Clinical Drug Evaluation Unit Reports. The *Bulletin* is now available on subscription from the Superintendent of Documents. Subscription price: $4.00 per year

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